EAPL/SI/2026/V1

Eastman®

#TheWiseChoice

Solar Inverters (IP21) Low Voltage

www.eaplworld.com

Solar Hybrid Inverter IP21 (Low Voltage)

3.6kW, 5kW
Single Phase

5 Years Warranty* on Inverter

5 Years of Complete Assurance

Why Choose Eastman Solar Hybrid Inverter IP21 (Low Voltage)?

Superior Efficiency: 96% Efficiency | Maximum Solar Harvest.

Less Heat & Noise: Smart thermal design reduces noise and keeps the inverter running efficiently.

Perfect Power Factor: Power Factor 1.0 | 100% Productive Energy.

Faster MPPT Response: Ensures more solar generation even during sudden cloud movement or changing sunlight.

Lighter and Smaller: Easy to install and space-saving, perfect for modern homes.

*T&C Apply

EastmanONE App — Your Solar Dashboard

See how much power your solar panels are generating, track savings, and monitor battery levels — all from your phone. Your data is stored securely on Indian servers, never shared.

Powered By:
Eastman Intelligence

What's Inside

Forever Forward.

For India, Its People and What Comes Next

ENERGY TRANSITION COMPANY

Purpose-built to move India and its people permanently forward.

We operate at the intersection of where energy access meets everyday life: last mile e-mobility that puts livelihoods in motion, Residential Solar with Storage that brings energy independence to homes and businesses and advanced electronics manufacturing that builds the technological backbone of a cleaner economy.

₹5601 Cr.*
FY25-26 Turnover

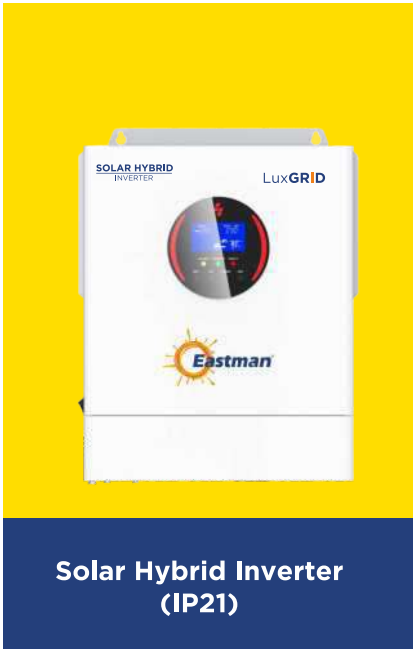
CAGR 29.6%
Last 4 Fiscal Years

Over **4100+**
Employees

1900+
Distributors

*Unaudited Results

Why Solar Hybrid Inverter (IP21) is #TheWiseChoice



Solar Hybrid Inverter (IP21)

VS

Generator Set

Hybrid Inverter (Transformer based)

Grid Tie Inverter

Hybrid Inverter (IP21) Vs. Generator Set

Parameter	Solar Hybrid Inverter (IP21)	Generator Set
Fuel / Energy Cost	Near-zero (solar + grid off-peak)	High & rising diesel costs
Running Cost	Minimal — no moving parts	High — fuel, oil, filters
Noise Level	Silent operation	85–110 dB — major disruption
Emissions	Zero emissions — clean & green	CO_2, NO_x, particulates
Maintenance	Low — annual checks only	Every 250–500 hrs (frequent)
Response Time	Instantaneous (<10 ms switchover)	10–30 sec warm-up delay
Scalability	Modular — add batteries/inverters easily	Fixed capacity; costly to expand
Lifespan	5–7 yrs (Inverter), 5–7 yrs (Battery)	8–12 years with heavy maintenance
Grid Feed-in	Yes — export excess solar to grid	Not applicable
Remote Monitoring	Yes — Through Mobile App	Basic gauges only
ROI Horizon	5–6 years (with solar)	No ROI — pure OpEx drain
Capital Cost	Higher upfront (Inverter + Battery)	Lower upfront cost

Solar Hybrid inverter (IP21) offer a cost-effective, silent and clean energy solution vs diesel generators. Though requiring indoor installation or an enclosure, they deliver strong ROI, zero emissions and smart remote monitoring. A smarter long-term investment.

Solar Hybrid Inverter: IP21 Vs. Transformer based

Parameter	Solar Hybrid Inverter (IP21)	Solar Hybrid Inverter (Transformer-Based)
Install Location	Indoor only	Indoor only (large room)
Enclosure Required	Yes (IP54+ cabinet needed)	Yes (large & heavy cabinet)
BOS Cost Impact	Medium – extra enclosure	High space + foundation
Efficiency	96% (transformerless)	~85% (transformer loss)
Weight	Light to medium	Heavy (+30–50% for transformer)
Ambient Tolerance	-10°C to +55°C indoor	-10°C to +50°C indoor
Water / Dust Protect.	No protection (IP21)	No protection (IP20 typical)

Solar Hybrid Inverter (IP21) is a cost-efficient transformerless solution ideal for indoor/semi-protected environments. While it requires an enclosure unlike IP65, it outperforms transformer-based systems in efficiency and power quality - making it a strong value proposition.

Solar Hybrid Inverter (IP21) Vs Solar Grid Tie Inverter

Parameter	Solar Hybrid Inverter (IP21)	Solar Grid Tie Inverter
Battery Storage	✓ Yes, Scalable	✗ No battery port — storage needs AC coupling
Grid Outage Operation	✓ Seamless island / off-grid mode	✗ Shuts down instantly (anti-islanding)
Solar Self-Consumption	✓ Up to 100% with battery buffer	Partial — surplus exported, night = zero
Peak Load Shaving	✓ Discharge battery at peak tariff hours	✗ Not possible — grid-dependent
Night-time Power	✓ Battery discharges through inverter	✗ No storage — zero output at night
Grid Feed-in	✓ Yes — export excess solar to grid	✓ Yes — this is the primary function
EV Charging	✓ Smart charge from solar + battery	Limited — tied to grid availability
Scalability	✓ Add batteries / parallel inverters	Limited to solar array capacity only
Outage Response	✓ Switches to island mode in <10 ms	Hard cutoff — all power lost immediately
Protection Class	IP21 — requires indoor/enclosure install	IP65/IP66 typical (outdoor also OK)

Solar Hybrid inverters (IP21) deliver power anytime - day or night, with or without the grid. Grid-tie systems fall short in outages and lack storage, making them less reliable for homes and businesses that need uninterrupted power.

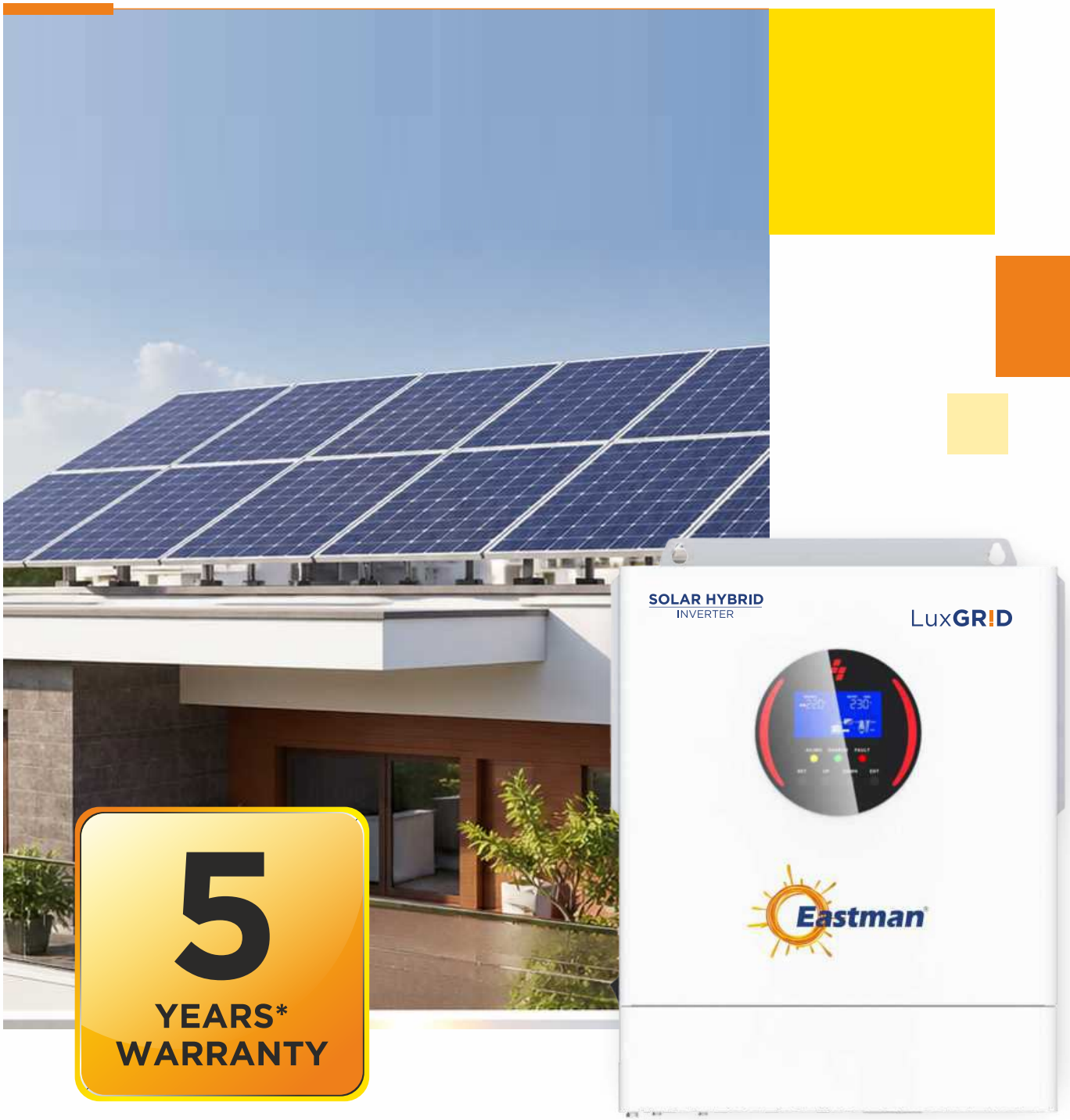
Why Solar Hybrid Inverter (IP21) Wins?

Solar Hybrid Inverter (IP21) vs. Generator Set	Solar Hybrid Inverter: IP21 vs. Transformer Based	Solar Hybrid Inverter (IP21) vs. Solar Grid Tie Inverter
No fuel, no noise, no emissions	Higher power factor	Stays on during grid outages
Instant switchover (<10 ms)	Lower BOS cost impact	Native DC battery integration
10-year TCO up to 60% lower	High efficiency (≥96%)	Dual Operation: On-Grid + Off-Grid
ROI: 5-6 years with solar	Transformerless - clean output	Night-time power from battery
Modular & easily scalable	Lighter & faster to deploy	Full energy independence path

- Solar Hybrid Inverter (IP21) delivers maximum power output with minimal energy loss, ensuring better performance and higher savings.
- Its compact and lightweight design makes installation easier, faster, and more flexible for any rooftop.

Solar Hybrid Inverter (IP21) is the best choice for reliable power backup with superior efficiency, smart solar savings, and efficient energy management for indoor installations.

Solar Hybrid Inverter (IP21) (Single Phase)



Model:

EHY-3.6KW-24V-1P

EHY-5KW-48V-1P

Powered By:
Eastman Intelligence

Eastman Intelligence - Powering Smart Connectivity to the external world, putting real-time data at your fingertips. Experience seamless access anytime, anywhere with the EastmanONE App.

*T&C Apply

Product Overview
Solar Hybrid Inverter (IP21)

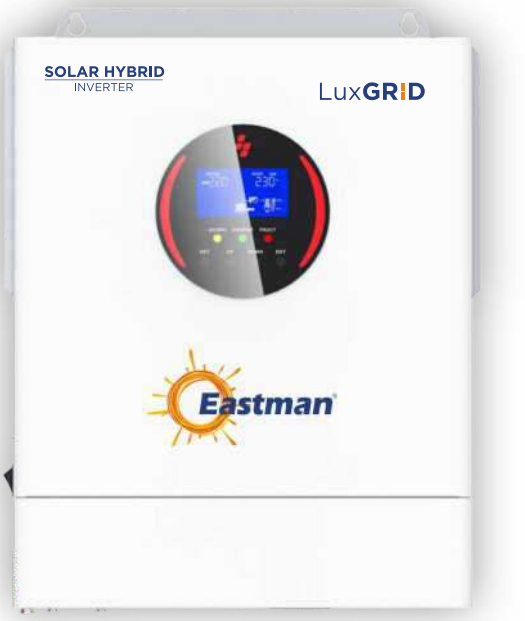
Powered By: Eastman Intelligence

The Eastman Solar Hybrid Inverter (IP21) - available in 3.6kW and 5kW - is engineered for reliable performance in controlled indoor environments across India. Designed for installation inside homes, offices and small commercial spaces, its IP21-rated enclosure ensures efficient operation while protecting internal electrical components.

It intelligently manages solar PV, battery bank and grid (DISCOM), making it a dependable solution for areas experiencing frequent power cuts and voltage fluctuations.

The system prioritizes solar self-consumption, helping reduce electricity bills during peak tariff hours, and switches to backup mode in under 10 ms during power outages - ensuring uninterrupted power for essential appliances such as fans, pumps and refrigerators.

Additionally, it features remote monitoring through the EastmanONE App, allowing users to track and manage their solar energy system anytime, from anywhere.



Model:

EHY-3.6KW-24V-1P

EHY-5KW-48V-1P

Reliability
Life. Uninterrupted.

Robust Overload Handling
Handles surges up to 2x rated load - your appliances stay ON even during sudden demand spikes, no tripping, no interruptions.

High Peak Power Capacity
Delivers peak power, starts heavy motor loads like ACs, pumps & compressors instantly - no need for a separate starter or oversized inverter.

Type-II SPD Enabled AC and DC side
Keeps System remains protected from lightning and grid spikes – from both Solar Side & Grid Side — no extra device needed.

Total Cost of Ownership
A Lifetime of Value

Low Startup Voltage
Starts generating electricity earlier in the morning and continues later in the evening – More free electricity everyday.

High Maximum PV Voltage
Allowing more panels per string - meaning less cabling, lower installation cost, and higher system efficiency.

High PV Input Capacity
Takes in more power from solar panels - It charges the battery faster and provides backup when you need it most

Technical Specification (Single Phase)

Model	EHY-3.6KW-24V-1P	EHY-5KW-48V-1P
PV Input		
Max. Input Power (kW)	4.5	7.5
Max. PV Voltage (V)	500	500
MPPT Range (V)	120-450	60-450
Full MPPT Range (V)	220-450	185-450
Normal Voltage (V)	320	320
Startup Voltage (V)	75	60
Max. Input Current (A)	18	28
Max. Short Current (A)	22	35
No. of MPP Tracker / No. of PV String	1/1	1/2
Battery Port		
Max. Charge/Discharge Power (W)	2100 / 3600	4800 / 5000
Max. Charge (A)	80	100
Max. Discharge Current (A)	150	105
Battery Normal Voltage (V)	24	48
Battery Voltage Range (V)	20 - 33	40-60
Battery Type	Li-ion / Conventional Tubular Battery etc.	Li-ion / Conventional Tubular Battery etc.
AC Grid (Export)		
Max Continuous Current (A)	16.0	21.8
Max Continuous Power (kVA)	3.6	5.0
Rated Continuous Power (kW)	3.6	5.0
Nominal Grid Current (A)	15.7	21.8
Nominal Grid Voltage/Range (V)	(170 to 280) @ 230	(170 to 280) @ 230
Nominal Grid Frequency (Hz)	50 / 60	50 / 60
Grid Frequency Range	45-55Hz/55-65Hz (according to local standard)	45-55Hz/55-65Hz (according to local standard)
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)	1 (Adjustable from 0.8 leading to 0.8 lagging)
Current THD (%)	< 8%	< 8%
AC Load Output		
Max Continuous Current (A)	30	40.0
Peak Power(VA)	7200	9200
Rated Continuous Power (kW)	3.6	5.0
Nominal Grid Voltage/Range (V) NARROW	(170 to 280) @ 220 / 230	(170 to 280) @ 220 / 230
Nominal Grid Voltage/Range (V) WIDE	(90 to 280) @ 220 / 230	(90 to 280) @ 220 / 230
Nominal AC Frequency (Hz)	50 / 60	50 / 60
Switching Time (ms)	10ms (typical)	10ms (typical)
V-THD (%)	< 3%	< 7%
Efficiency		
Max. Efficiency (%)	95	96
MPPT Efficiency (%)	99.8	99.8
Protection		
PV Reverse Polarity Protection	YES	YES
Over Current/Voltage Protection	YES	YES
Anti-Islanding Protection	YES	YES
AC Short Circuit Protection	YES	YES
Enclosure Protect Level	IP21	IP21
AC/DC surge protection	Type II	Type II
General Data		
Dimensions (L x W x D) mm	378x 280 x 103	360 x 290 X 133
Weight (kg)	7.4	8.5
Topology	Transformerless	Transformerless
Cooling	Forced air cooling	Forced air cooling
Relatively Humidity	5% to 95%	5% to 95%
Operating Temperature Range (°C)	- 10°C to 55°C (> 40 Derate)	- 10°C to 55°C (> 40 Derate)
Operating Altitude (m)	Derate > 2000	Derate > 2000
Noise Emission (dB)	< 65	< 65
Power Saving Mode	Load ≤ 50	Load ≤ 50
Mounting	Wall Bracket	Wall Bracket
Display & Communication Interfaces	LCD, LED, RS485, USB, GPRS,CAN, Wi-Fi, Dry node control	

Note: As part of regular product updates, specifications may be revised without prior notification.

*T&C Apply

EastmanONE App

Smart Control in Your Hands

Powered By: Eastman Intelligence

Power management has entered a new era. With the EastmanONE App and Eastman Wi-Fi Stick, you get a smarter way to monitor, control and optimize your inverter and solar systems — anytime, anywhere.

1. Eastman Wi-Fi Stick

Simply plug the compact Wi-Fi Stick into your inverter to connect it to the app. No wiring, no setup hassle, it enables instant communication between your system and the cloud, making your inverter truly smart.

2. Real-Time Monitoring

Get a live view of your inverter's performance, including input/output status, solar generation, battery charge, load usage and power backup time directly on your mobile screen.

3. Multi-Device Connectivity

Monitor multiple inverters and locations through a single app. Perfect for homes, offices and institutions managing multiple systems.

4. Performance Reports with Smart Alerts

Access detailed daily, monthly and yearly energy statistics. Gain insights into solar generation, grid usage and consumption patterns to improve efficiency and savings. Receive instant alerts for faults or maintenance needs. The app ensures you act before issues impact performance.

5. Cloud-Based Data Security

All data is securely stored and backed up on Eastman's encrypted cloud servers, ensuring reliability and privacy.

Eastman Wi-Fi Stick*

EastmanONE App

GET IT ON Google Play

Download on the App Store

Empower your energy experience with EastmanONE.

Download now from Google Play & App Store

With the EastmanONE App, all your energy data is securely stored on Indian servers, fully compliant with Indian data regulations. This ensures complete safety, privacy and peace of mind — keep the system protected within the country's trusted digital infrastructure.

*Default WI-Fi stick with product, however solar Inverter is also compatible with GSM stick.

Eastman Assure™ Promise

Round-the-Clock Service

At Eastman, great products deserve equally great service. Through Eastman Assure, we've built a customer-first ecosystem that ensures quick resolutions, proactive support, and peace of mind — every step of the way.

AI-Powered Voice Bot

- Get instant support anytime without waiting or follow-ups.
- Raise requests and check warranty or complaint status in seconds.

78884 78885

24x7 Call Centre

- Expert help is always available, day or night.
- Quick, reliable support for installation, service, and troubleshooting.

1800-419-8610

Online Complaint Management

- Track your complaint in real time with complete visibility.
- Stay informed at every step until your issue is resolved.

Eastman Assure Portal

- One place for all your service needs, simple and convenient.
- Manage warranty, complaints, and service history with ease.

We are 24x7 Available!

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WhatsApp	Toll Free Number	Service Portal

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Eastman Assure

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