E-ONYX420024V

EURONET ONYX SOLAR INVERTER – 4.2kW

Off-Grid Solar Inverter | MPPT 110A Solar Charger



RATED POWER	BATTERY VOLTAGE
4200VA / 4200W	24V DC
SURGE POWER	**MAX PV ARRAY POWER**
8400VA	6000W
MPPT SOLAR CHARGER	**MAX AC CHARGE CURRENT**
110A	80A

OVERVIEW

The EURONET E-ONYX420024V is a 4.2kW (4200VA / 4200W) pure sine wave off-grid solar inverter from the Onyx Series, built for 24V battery banks. Its built-in MPPT solar charger delivers up to 110A from as much as 6000W of panels (MPPT range 55V–450V DC), and the AC charger adds up to 80A from the grid or a generator. Programmable PV, battery or grid priority sends solar energy to the load first, and the inverter works with lithium batteries through BMS communication or with lead-acid batteries. It has overload, high-temperature and output short-circuit protection, RS232 / RS485 as standard, Wi-Fi as an option and an optional anti-dust kit.

KEY FEATURES

Pure Sine Wave Output
Rated 4200W with 8400VA surge power, regulated to 230V AC ±5% when running from the battery

Built-in MPPT Charger
Up to 110A solar charge current from as much as 6000W of PV, with a 55V–450V DC MPPT voltage range

Programmable Supply Priority
Programmable PV, battery or grid supply priority, with solar energy sent directly to the connected load first

Lithium & Lead-Acid Ready
Works with lithium batteries through BMS communication or lead-acid, with a smart charge design for long life

Wide AC Input Range
230V AC input accepts 170V–280V AC (PC mode) or 90V–280V AC (appliance mode), 50/60Hz auto-sensing

Protection & Monitoring
Overload, high-temperature and output short-circuit protection; RS232 / RS485 standard, Wi-Fi optional

TECHNICAL NOTE

E-ONYX420024V off-grid; 4200VA / 4200W; 24V DC battery. Surge 8400VA. MPPT 55V–450V DC, max PV 6000W, Voc 450V DC; max solar charge 110A, AC charge 80A. Float 27V / overcharge protection 31V. AC input 230V AC (170V–280V PC / 90V–280V appliances), 50/60Hz. Output 230V AC ±5%, transfer 10ms / 20ms, peak efficiency 98% PV / 94% battery. 423×290×100mm, 6.8 kg. Operating -10°C to 55°C, storage -15°C to 60°C, 5–95% RH.

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E-ONYX420024V

PRODUCT TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATIONS
GENERAL	
Model	E-ONYX420024V
Series	Onyx Series
Type	Off-grid solar inverter
Rated Power	4200VA / 4200W
Surge Power	8400VA
Output Waveform	Pure sine wave
Supply Priority	Programmable: PV, battery or grid
Solar Use	Solar energy sent to the load first
BATTERY	
Battery Voltage	24V DC
Battery Type	Lithium (BMS communication) or lead-acid
Float Charge Voltage	27V
Overcharge Protection	31V
Max AC Charge Current	80A
Charging	Smart charge design for longer battery life
PV INPUT / SOLAR CHARGER	
Charger Type	MPPT, built in
Max PV Array Power	6000W
MPPT Voltage Range	55V–450V DC
Max PV Open-circuit Voltage	450V DC
Max Solar Charge Current	110A

PARAMETER	SPECIFICATIONS
AC INPUT	
Nominal Input Voltage	230V AC
Input Range (PC Mode)	170V–280V AC
Input Range (Appliance Mode)	90V–280V AC
Frequency	50/60Hz (auto-sensing)
AC Sources	Grid or generator
AC OUTPUT	
Output Voltage (Battery)	230V AC ±5%
Waveform	Pure sine wave
Transfer Time	10ms (PC) · 20ms (home appliances)
Peak Efficiency, PV to Inverter	98%
Peak Efficiency, Battery to Inverter	94%
COMMUNICATION	
Interfaces	RS232 / RS485 (standard)
Wi-Fi	Optional · Wi-Fi & GPRS for iOS and Android
Battery Communication	Lithium BMS
Monitoring	Cloud app / web (via Wi-Fi)
PROTECTION & FUNCTIONS	
Protection	Overload · high temperature output short circuit
Cold Start	Yes
Cooling	Intelligent fan speed adjustment
PHYSICAL & ENVIRONMENTAL	
Dimensions	423 × 290 × 100 mm
Net Weight	6.8 kg
Dust Protection	Anti-dust kit (optional)
Operating Temperature	-10°C to 55°C
Storage Temperature	-15°C to 60°C
Humidity	5–95% RH (non-condensing)
IP Rating	Not available
CERTIFICATION	
Compliance	CE

**Specifications are subject to change without prior notice.*

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