APsystems
ALTENERGY POWER

The global leader in
multi-platform MLPE technology



ECU-C

Energy communication unit with advanced functions

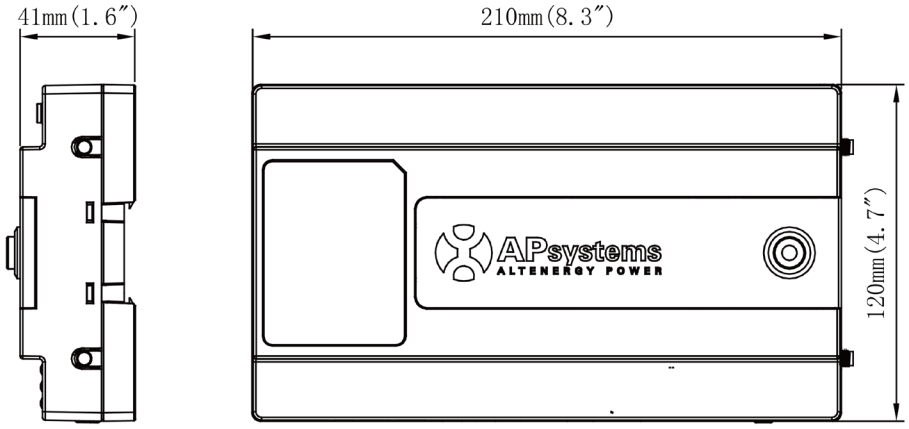
- PV production, load consumption and grid import/export energy monitoring by integrated meters
- Stable wireless encrypted ZigBee communication with microinverters, built-in Wi-Fi and Ethernet network
- Power export limit and Zero export
- 5V USB port available
- Internal relay available to control external devices
- Adapted to both single-phase or three-phase systems

PRODUCT FEATURES

The APsystems Gateway, our state-of-the-art Energy Communication Unit (ECU), collects PV production information from microinverters, energy import/export data from the grid, and energy consumption data and delivers it to the APsystems Energy Monitoring and Analysis (EMA) platform. Through the EMA web or mobile application, users can get module-level performance insight and energy information.

With high-frequency metering and internal relays, the ECU-C offers advanced functions, e.g. power export limit, external device (eg water heater) control etc.

DIMENSIONS



ECU-C Datasheet

Model	ECU-C

Communication to Microinverter

Communication	ZigBee 2.4 GHz
Maximum Communicating Inverters*	100

Communication to EMA

Ethernet	10/100M Auto-sensing, Auto-negotiation
Wireless	Wi-Fi 802.11g/n /GSM Cellular
USB interface	5Vdc - 0.5A Output x 2
RS232	Standard
RS485	Standard
RJ45	Standard

Power Data

AC Power Supply	110-277VAC, 50-60Hz Single Phase – (3-Phase Optional)
DC Power Supply	12V-16V
Power Consumption	3W

Product Specifications

Frequency Range	2412MHZ-2472MHZ (WIFI), 2405mhz-2480mhz (ZigBee)
RF Output Power (EIRP)	12.69 dbm (WIFI), 6.62 dbm (ZigBee)
Type of Antenna	External antenna,SMA type connector
Modulation	DSSS, OFDM
Mode of Operation(Simplex/Duplex)	Duplex

Mechanical Data

Dimensions (W×H×D)	210mm x 120mm x 41mm (8.3" x 4.7" x 1.6")
Weight	500g (1.1lbs)
Operating Ambient Temperature Range	-40°C to +65°C (-40°F a +149°F)
Cooling	Natural Convection; No Fans
Enclosure Environmental Rating	Indoor - NEMA 1 (IP20)

Other Features

Grid Type	Single Phase / Three Phase
Relay Driver	Control external AC contact or relay
Advanced Functions	PV production, load consumption and grid export/import energy measured by integrated meter. Limited/zero power-export. Internal relay integrated to control external devices according to exported power (eg water heater).
Digital Input	For external control device connection
CT Sensor	Production and consumption metering
Meter Accuracy	Integrated PV production metering (+/- 0.5% via CT) and optional consumption monitoring (+/- 2.5% via CT)
Warranty	3 Years Standard

Compliance

Compliance	IEC/EN 61010-1; AS 61010-1; ANSI/UL/CSA 62368-1; CSA C22.2 NO.62368-1-19; Pending:EN 300328; EN 301489-1; EN 301489-17; EN IEC 61000-6-1/-2/-3/-4; EN 62311; FCC Part 15; ICES-003

**Maximum number of microinverters per ECU may vary depending on the PV array size and layout, maximum distance between ECU and microinverters in the array, obstacles (thick concrete wall, metallic roof top).*

Please scan this QR code to download our APPs or check the link: https://apsystems.com/qr-code/

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