



December 8, 2016

Effective Date

# WARRANTY CERTIFICATE

## EXTENDED LIMITED WARRANTY

APsystems YC250, YC500 & YC1000 Microinverter  
North America

### Extension to 25 Years

All APsystems YC250, YC500 & YC1000 Microinverters are covered by a 10 year Limited Warranty.

This certificate confirms that the APsystems Microinverters listed below are covered, in addition to the 10 year Limited Warranty, for a further 15 years, beginning 10 years after the above date, in accordance with the rights and conditions specified on this Certificate.

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## APsystems YC250, YC500 & YC1000 Microinverter Extended Limited Warranty North America

The YC250, YC500 & YC1000 Microinverters (the "Product") supplied by Altenergy Power Systems USA Inc. ("APsystems") are designed to withstand normal operating conditions when used for their originally intended purpose in compliance with the APsystems User Manual supplied with the system. This APsystems Extended Limited Warranty ("Extended Limited Warranty" or "ELW") covers Defective Products for a period starting at the termination of the standard ten (10) years Limited Warranty Period, for an additional fifteen (15) years, from the date of original purchase of the Product from APsystems (the "Extended Warranty Period"). A Product is defective if it is inoperable because of defects in material and workmanship, provided that APsystems, through inspection, establishes the existence of that defect ("Defective Product"). To obtain service under this Extended Limited Warranty, the holder of the Warranty must comply with the Return Merchandise Authorization ("RMA") procedures, which can be found at [www.APsystems.com](http://www.APsystems.com).

During the Extended Warranty Period, APsystems will, at its option, either:

- (1) repair the Defective Product free of charge, or
- (2) provide a credit to the holder of the Warranty towards purchase of a replacement Product from APsystems based on the pro-rata ELW time period remaining for the Defective Product, which credit shall be calculated as follows;

- *"the number of months remaining under this ELW at the time of return of the Defective Product" divided by "300" multiplied by "the then current purchase price including shipping of a new replacement Product".*

If APsystems chooses to repair the Defective Product, APsystems may, at its option, use new and/or reconditioned parts, and/or parts of the original or a subsequent design. If APsystems repairs the Defective Product, APsystems will also cover the cost of shipping the replacement Product from APsystems to the customer. This ELW does not cover shipping cost of the Product to APsystems, or labor costs related to removing the Defective Product or re-installing the repaired or replacement Product, or any shipping damage. If APsystems repairs or replaces a Defective Product, the ELW continues on the repaired or replacement Product for the remainder of the original Extended Warranty Period.

The Extended Limited Warranty does not apply to, and APsystems will not be responsible for, any defect in, or damage to, any Product that (1) has been moved from its original installation location, or (2) has been disassembled, tampered with, or modified in any way, or (3) has been misused, neglected, improperly installed, or used under conditions for which the product was not designed to be used or used differently than outlined in the APsystems User Manual, or (4) has been subjected to fire, water, corrosion, infestations, or input voltage outside the parameters listed in the Product specifications, whether from the grid, generators, or lightning strikes, or (5) has been impacted by incidental or consequential damage caused by other components of the electrical system within which it is installed, or (6) has been subject to any attempt to alter or remove the original identification markings (including trademark, model number, or serial number). This ELW does not cover costs related to the removal, installation or troubleshooting of any components of the customer's electrical systems.

During the Extended Warranty Period, this ELW may be transferred to subsequent owners of the Product upon completion of a "Warranty Transfer Form" available from the APsystems website, and payment of the nominal transfer fee as shown on that form.

THIS EXTENDED LIMITED WARRANTY IS A SUPPLEMENTAL WARRANTY OFFERED BY APsystems AND IS ONLY APPLICABLE IF THE CUSTOMER HAS PAID FOR THIS EXTENDED LIMITED WARRANTY AND HAS PROOF OF REGISTRATION OF THE UID OF THE SPECIFIC PRODUCT. AFTER THE WARRANTY PROVIDED BY APsystems DURING THE INITIAL 10 YEAR WARRANTY PERIOD, THIS EXTENDED LIMITED WARRANTY IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF TITLE, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, OR WARRANTIES AS TO THE ACCURACY, SUFFICIENCY, OR SUITABILITY OF ANY TECHNICAL OR OTHER INFORMATION PROVIDED IN MANUALS OR OTHER DOCUMENTATION. IN NO EVENT WILL APsystems BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, COSTS, OR EXPENSES, HOWEVER ARISING, WHETHER IN CONTRACT OR TORT, INCLUDING WITHOUT LIMITATION ANY ECONOMIC LOSSES OF ANY KIND, ANY LOSS OR DAMAGE TO PROPERTY, OR ANY PERSONAL INJURY.

Some jurisdictions do not allow limitations or exclusions on implied warranties or on the duration of an implied warranty or on the limitation or exclusion of certain damages, so the above limitation(s) or exclusion(s) may not apply. This Extended Limited Warranty gives the customer specific legal rights, and the customer may have other rights that may vary from jurisdiction to jurisdiction.

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[www.APsystems.com](http://www.APsystems.com)



Authorized Signature







September 21, 2016

Effective Date

# WARRANTY CERTIFICATE

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APsystems YC250, YC500 & YC1000 Microinverter  
North America

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Some jurisdictions do not allow limitations or exclusions on implied warranties or on the duration of an implied warranty or on the limitation or exclusion of certain damages, so the above limitation(s) or exclusion(s) may not apply. This Extended Limited Warranty gives the customer specific legal rights, and the customer may have other rights that may vary from jurisdiction to jurisdiction.

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Authorized Signature







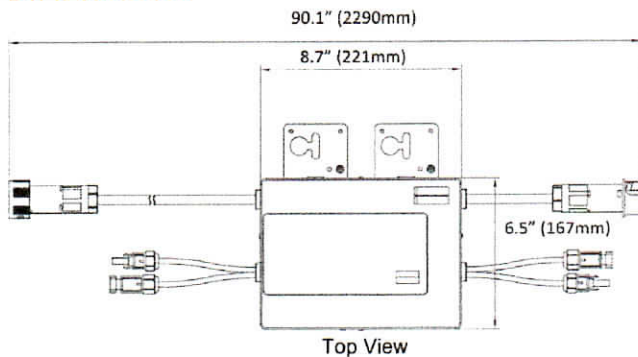
Leading the Industry in  
Microinverter Technology

# YC500A Microinverter

- Single unit connects two solar modules
- Maximum output power 500W
- Individual MPPT for each module
- Rated up to 310W
- Up to 14 solar modules (7x YC500s) in a string with a 20A breaker

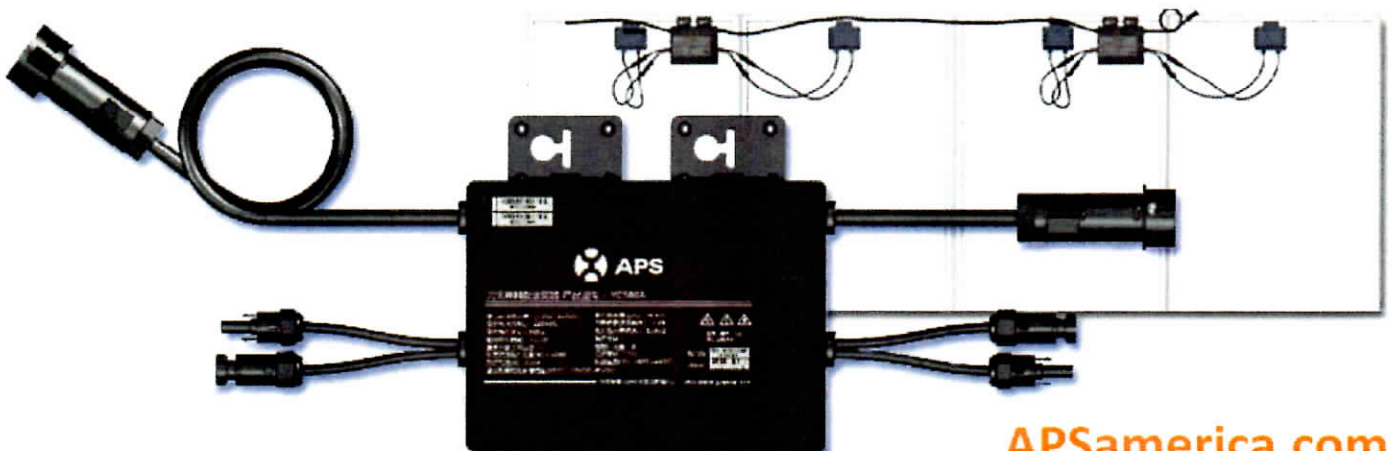


## DIMENSIONS



Our flagship product, the APS YC500A is a grid-tied microinverter with intelligent networking and monitoring systems to ensure maximum efficiency. Highly dependable and cost effective, the YC500A handles up to 310W modules with negligible clipping, delivering 250W AC per module with dual MPPT. Half the inverters and half the installation means real cost savings for residential and commercial customers.

Long wire on right of inverter and S/N labels are facing up.



[APSAmerica.com](http://APSAmerica.com)

# APS YC500A Microinverter Datasheet

## INPUT DATA (DC)

|   |          |
|---|----------|
| Recommended PV Module Power Range (STC) | 180-310W |
| MPPT Voltage Range                      | 22-45V   |
| Maximum Input Voltage                   | 55V      |
| Maximum Input Current                   | 12A X 2  |

## OUTPUT DATA (AC)

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| Rated Output Power                  | 500W                              |
| Maximum Output Current              | 2.08A @ 240V 2.4A @208V           |
| Nominal Output Voltage/Range - 240V | 240V/211V-264V*                   |
| Nominal Output Voltage/Range - 208V | 208V/183V-229V*                   |
| Nominal Output Frequency/Range      | 60Hz/ 59.3-60.5Hz*                |
| Power Factor                        | >0.99                             |
| Total Harmonic Distortion           | <3%                               |
| Maximum Units Per Branch            | 7 per 20A @ 240V 6 per 20A @ 208V |

## EFFICIENCY

|                                 |       |
|---------------------------------|-------|
| Peak Efficiency                 | 95.5% |
| CEC Weighted Efficiency         | 95%   |
| Nominal MPP Tracking Efficiency | 99.5% |

## MECHANICAL DATA

|  |                                  |
|--|----------------------------------|
| Storage Temperature Range              | -40°F to +185°F (-40°C to +85°C) |
| Operating Temperature Range (Ambient)  | -40°F to +149°F (-40°C to +65°C) |
| Operating Temperature Range (Internal) | -40°F to +185°F (-40°C to +85°C) |
| Dimensions (WxHxD) inches              | 8.75" x 6.5" x 1.1"              |
| Dimensions (WxHxD) mm                  | 221mm x 167mm x 29mm             |
| Weight                                 | 5.5 lbs (2.5kg)                  |
| Enclosure Rating                       | NEMA 4X                          |
| Cooling                                | Natural Convection               |

## FEATURES & COMPLIANCE

|                                       |   |
|---------------------------------------|---|
| Communication                         | Power line  |
| Design Life                           | 25 years  |
| Emissions & Immunity (EMC) Compliance | FCC PART 15, ANSI C63.4 2003, ICES-003            |
| Safety Class Compliance               | UL 1741 , CSA C22.2, No. 107.1-01, NEC2014 690.12 |
| Grid Connection Compliance            | IEEE 1547   |

Specifications subject to change without notice - please ensure you are using the most recent update found at [www.APSAmerica.com](http://www.APSAmerica.com)

\* Programmable per customer and utility requirements. All settings UL approved

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# MANUFACTURER'S LIMITED PRODUCT WARRANTY

## WARRANTY

Unirac, Inc., ("Unirac") warrants to the buyer ("Buyer") at the original installation site ("Site") that any of the SolarMount components designed and manufactured by Unirac<sup>1</sup> and installed at the Site ("Product") shall be free from defects in material and workmanship which substantially impair their ability to perform their intended function, as referenced in the Unirac Product Information, for a period of ten (10) years – except that any factory-applied anodized finish is warranted to be free from substantial manufacturing-related visible peeling or cracking or chalking under normal atmospheric conditions for a period of five (5) years ("Finish Warranty") – from the earlier of 1) the date the installation of the Product at the Site is substantially complete, or 2) 120 days after the purchase of the Product by the original Buyer of the Product ("Warranty Period").

## WARRANTY TRANSFERENCE

Buyer may transfer this Warranty to subsequent Site owners, or if original Buyer is a contractor, to the Site owner, so long as the transferee agrees to the terms of this Limited Warranty as if it were the Buyer. Proof of purchase is required for any warranty claim.

## FINISH WARRANTY LIMITATIONS

The Finish Warranty does not apply to any issues caused by foreign residue deposited on the finish, or an installation in atmospheric conditions more corrosive than normal conditions. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 – "Cleaning and Maintenance for Architecturally Finished Aluminum" ([www.aamanet.org](http://www.aamanet.org)) are not followed.

## WARRANTY LIMITATIONS

**This Limited Warranty covers only the Product, and not PV modules, electrical components and or wiring used in conjunction with the Product or any other materials not provided by Unirac.** Goods which may be sold by Unirac, but which are not designed or manufactured by Unirac are not warranted by Unirac, are sold only with the warranties, if any, of the original manufacturers thereof. This Limited Warranty does not cover damage to the Product that occurs during its shipment, storage, installation or use, or from force majeure acts including fire, flood, earthquake, storm, hurricane or other natural disaster, war, terrorist activities, acts of foreign enemies and criminal acts. This Limited Warranty does not cover damages or problems caused by the connection to or use of alternative materials not purchased from Unirac Price List. This Limited Warranty shall be void if A) installation of the Product is not performed in accordance with the Unirac Product Information, B) if the Product has been modified, repaired, or reworked in a manner not previously authorized by Unirac in writing, or C) the Product is installed in an environment for which it was not designed, each as determined by Unirac in its sole discretion.

## WARRANTY CLAIMS

If, within the Warranty Period, the Product shall be proven at Unirac's sole discretion to be nonconforming, then Unirac shall repair or provide a replacement for the nonconforming Product, or any nonconforming part thereof, at Unirac's option. Any such repair or replacement does not cause the beginning of new warranty terms, nor shall the Warranty Period of this Limited Warranty be extended. Unirac's aggregate liability for all warranty claims shall not exceed the original Purchase Price of the nonconforming Product. Buyer shall bear all costs of shipment or transportation related to the repair or replacement of the nonconforming product. Such repair or replacement shall be Buyer's sole remedy and shall fulfill all of Unirac's obligations with respect to the Product and all warranty claims.

EXCEPT FOR THE LIMITED WARRANTY EXPRESSED ABOVE, UNIRAC MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND WHATSOEVER AND HEREBY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING AND USAGE OF TRADE.

UNIRAC SHALL NOT BE LIABLE FOR LOSS OF USE, REVENUE OR PROFIT, OR FOR DIRECT, INDIRECT, SPECIAL, PUNITIVE, LIQUIDATED, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY OTHER LOSS OR COST OF A SIMILAR TYPE, OR FOR CLAIMS BY BUYER FOR DAMAGES OF BUYER'S CUSTOMERS, CLAIMS OF THIRD PARTIES OR INJURY TO PERSONS OR PROPERTY ARISING OUT OF ANY DEFECT OR NONCONFORMITY IN THE PRODUCT COVERED BY THIS WARRANTY, EVEN IF CAUSED BY THE NEGLIGENCE OF UNIRAC. ALL SUCH DAMAGES AND EXPENSES ARE HEREBY EXCLUDED.

<sup>1</sup> Excluding Plastic Wire Management Clips

**EFFECTIVE DATE: FEBRUARY 28, 2014**