

ACXIS®

EN-208 for the Enphase® Envoy®



The ACXIS® AC Combiner (EN-208) dramatically simplifies the installation and communication setup of any PV system using Enphase® microinverters and the Envoy® monitoring gateway. Combining up to 12 incoming AC branch circuits, it eliminates the need for traditional PV load centers allowing the Envoy to be mounted at the point of branch circuit interconnection, maximizing Power Line Communication strength between the inverters and Envoy gateway. This patented solution includes ferrite filters that keep line-noise from interfering with PLC communication, LED branch circuit current indicators, surge protection and other trouble shooting features all enclosed in a NEMA 3RX weather resistant enclosure.

The ACXIS® AC Combiner will not only turn your PV interconnection, monitoring setup and troubleshooting into a time saving, predictable process, but can eliminate costly post-install service calls due to communication and interconnection issues.

Benefits

PERMANENTLY ELIMINATE THE TIME-CONSUMING HUNT FOR A VIABLE ENVOY LOCATION

Eliminate Customer frustration, time-consuming and costly searches throughout your customer's business for an acceptable Envoy location that allows only minimum communication strength between the Envoy and roof-mounted Microinverters due to line noise and other interference.

ELIMINATE INTERMITTENT SIGNAL LOSS BETWEEN THE ENVOY AND MICROINVERTERS

Allowing the Envoy to be mounted as close to the Microinverters as possible, directly at the point of Branch Circuit interconnection, maximizes Power Line Communication (PLC) signal strength between the Envoy communication gateway and the micro inverters. This means Maximum Envoy signal strength to "every" inverter, First Time - Every Time.

ELIMINATE "CROSS TALK" INTERFERENCE BETWEEN MULTIPLE PV ARRAYS AND ENVOY GATEWAYS ON THE SAME SITE.

Large Commercial PV systems requiring multiple AC combiners and Envoy Gateways in close proximity to each other can contaminate each array's data collection and reporting capabilities. The included Ferrite Rings, properly installed, prevent communication interference between multiple ACXIS® AC Combiners.

REDUCE TROUBLE SHOOTING TIME WITH THE CHOICE OF EITHER PLC OR WIRELESS COMMUNICATION TO THE ROUTER

The ACXIS® AC combiner accommodates both Wireless or Bridge Adaptor communication configurations from the Envoy, allowing you to easily swap to the most effective router communication methods, avoiding costly troubleshooting time.

ELIMINATE UNPREDICTABLE POWER LINE COMMUNICATION (PLC) INTERFERENCE ISSUES

The included Ferrite Rings prevent regional line noise created from lighting ballasts, HVAC, electric motors, compressors, pumps and other inductive loads, etc. from interfering with consistent PLC communication between the Microinverters and the Envoy Communication Gateway.™

REDUCE FRUSTRATING "ENVOY NOT REPORTING" EMAILS TO YOUR CUSTOMER AND TECH TEAM

Placing the Communication Gateway in a dedicated and secure location removes the possibility that an employee or building manager inadvertently unplugs, moves or damages the Envoy preventing consistent and effective communication to the router or Microinverters.

REDUCE LABOR COSTS THROUGH REDUCED INSTALL TIMES

The ACXIS® AC Combiner simplifies the interconnection and monitoring setup process, dramatically reducing installer time on site, allowing each PV installation to become a repeatable and predictable process.

DRAMATICALLY REDUCE THE TRAINING TIME REQUIRED FOR NEW INSTALLERS

Standardizing your interconnection and monitoring setup process allows you to standardize new installer training methods, reducing the time it takes to get productive installers in the field.

PERMANENTLY SOLVE RECURRING COMMUNICATION ISSUES ON "PAST" INSTALLS

Easily retrofittable, the ACXIS® AC Combiner can be integrated into troublesome PAST installations, effectively eliminating future truck rolls due to recurring communication or interconnection challenges.

ELIMINATE COSTLY TRUCK ROLLS DUE TO COMMUNICATION RELATED SERVICE CALLS

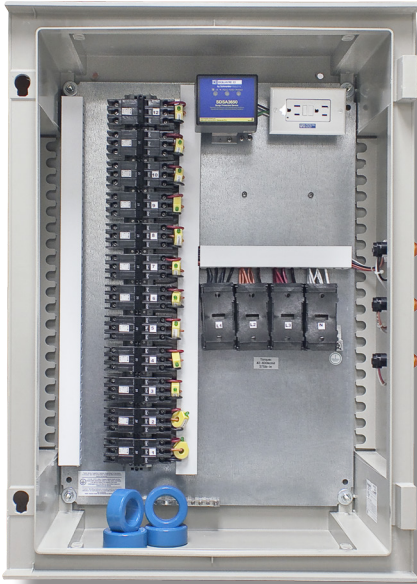
The ACXIS® AC Combiner can eliminate the vast majority of tech support truck rolls related to communication issues by filtering out supply side and demand side line noise caused by large intermittent electrical equipment, existing or future communication technology, electronics and other conflicting PLC devices.

REDUCE TRUCK ROLLS DUE TO INTERCONNECTION & ELECTRICAL ISSUES

Customer viewable LED branch circuit current indicators, circuit breakers, surge trip indicator and exterior 3PH grid-up indicator lights allow your service technician to work with the customer over the phone remotely, to diagnose many common causes of system downtime.



SHIPS READY FOR YOUR CONFIGURATION



ACCOMMODATES POPULAR CONFIGURATIONS



REDUCE DESIGN COMPLEXITY AND THE NEED FOR PRE-INSTALL SERVICE UPGRADES

Because the ACXIS® AC Combiner does NOT incorporate a common AC buss, PV designers can avoid over-current protection limitations that often require additional PV load centers and other costly pre-install service upgrades. Install up to 12 3PH 20Amp Breakers in a single enclosure.

SAVE MONEY AND CUSTOMER WALL SPACE BY CONSOLIDATING INTERCONNECTION EQUIPMENT

All in one fiberglass reinforced polyester construction includes the UL Certified AC Combiner with installed breakers, LED branch circuit current indicators, surge protection, dedicated Envoy mounting and GFI power protection, exterior grid-up indicator light and other integrated features reduce the cost and space needed for additional interconnection equipment.

INSTALL UP TO 72kW AC WITH A SINGLE ACXIS® AC COMBINER

Each EN-208 can accommodate up to 12 20A3PH Enphase branch circuits or approximately 72kW AC from a single ACXIS® AC Combiner.

INCREASE YOUR COMPETITIVE ADVANTAGE

Standardized Installation and Setup processes across all installation crews means less install errors, shorter more predictable install times and fewer service related truck rolls. Lower customer support costs lead to better margins and/or the ability to offer more competitive pricing. Happy customers generate more post-sale customer referrals.

SUMMARY:

The ACXIS® AC Circuit Combiner EN-208 Combines Incoming AC Branch Circuits to Breakers, Confirms Branch Current, Protects from Line Side Surges, Houses the Envoy Maximizing PLC Communication Strength, Provides GFI protection to the Envoy, Filters Out Line Side Electrical Noise and PLC Interference, Confirms Grid Connection to Each Phase and Accommodates up to 72kW AC of PV, all in a Single UL 1741 Certified Enclosure.

ADDITIONAL FEATURES:

- NEMA 3RX fiberglass reinforced polyester construction prevents bending or warping in hot or cold climates.
- Passive ventilation eliminates the need for fans or other moving parts while keeping bugs and spiders out.
- Integrated GFI receptacle protects the Envoy gateway from power supply damage.
- Accommodates Envoy Wireless or Bridge Adaptor communication to the router.
- Secure 3mm Double Bar Lockable enclosure keep settings and components secure while providing authorized access
- Combines up to 12 AC Branch Circuits or approximately 72kW AC. (for example: 288 Enphase M250 Microinverters)
- Integrated supply side surge protection, protects the Envoy and other internal components.

ACXIS® AC CIRCUIT COMBINER

EN-208 for the Enphase® Envoy®



DESIGN—LISTED UL 1741

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| NEMA 3RX Enclosure | An appreciable upgrade from common Nema 3 enclosures. Provides an additional, significant level of protection against corrosion in challenging environments. |
| Heat Vents | Allows the heat out, but prohibits critters from getting in. Passive ventilation means no moving parts. |
| Lockable Enclosure | Provides security for internal components. |
| Aesthetically Pleasing | It looks great. Dimensions are: 21.1"W x 29.4"H x 11.8"D |

INSTALLATION

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| 12 Back-fed Breakers | Handles up to 12 individual branch circuits, allowing for significant system expansion—72kW AC system sizes. ACXIS® generous number of breakers allows wide installation versatility. For example, in some installations, where it may be desirable to split branch circuits due to physical roof limitations, the two individual split circuits can be run directly to the ACXIS® without having to first join them on the roof. |
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TROUBLESHOOTING

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| External Status Light | Large external indicator lights for each of three utility phases quickly confirm connection to three-phase voltage from the utility. |
| Current Indicators | LED lights confirm electrical current flow from each independent branch circuit. |
| Surge Arrester | Includes surge suppression from severe transient activity. |

SYSTEM MONITORING

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| Compatibility | Specifically designed to house the industry-leading Enphase Envoy® system monitoring device. |
| Ferrite Rings | Assures strong and noise-free Ethernet bridge communication, while filtering out undesired transients and noise. |
| Device Placement | The placement of the monitoring device is optimally located within the ACXIS® to prevent site noise and system cross-talk from other closely located PV systems. Cross-talk disrupts communication between the microinverters and the monitoring device. |

COST SAVINGS

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| Accelerated Training | Train more personnel faster. ACXIS® streamlines the training process to allow your company to keep pace with the fast growth of the industry. |
| Reduced Trouble Calls | Thanks to the ACXIS® simple troubleshooting status indicators, the end-user can troubleshoot the system and often determine the cause of problems before placing a trouble call. Owner's manual can be downloaded at: www.e-gear.us . |
| Consistent Installation | Multiple crews means multiple processes and approaches to installation. ACXIS® reduces installation variables to a single, simple installation process. |

for more information visit: e-gear.us

