

# RAPID SHUTDOWN

# FACT SHEET



## SUNSPEC RAPID SHUTDOWN SPECIFICATION AND CERTIFICATION PROGRAM

### MEETING A MARKET MANDATE FOR SOLAR SAFETY

**PV module-level power control and safety ("rapid shutdown") is required in 34 states as of January 2020**



Requirement established by National Electrical Code (NEC) 2017.

Goal to protect firefighters and consumers who need to interact with a PV system.

NEC 2017 is an "inclusive" standard, meaning it applies to all manufacturers and equipment types covered by the standard.

The mandate affects millions of PV panels and all solar inverters.

**SunSpec Alliance global leaders have developed an open standard rapid shutdown communication solution**



35 companies worked together to create the solution, each of which identified unencumbered ideas and open technology.

The solution benefits all consumers by increasing the safety of PV systems and lowering installation costs through standardized Plug-and-Play system components.

Products complying to the standard are now available from world-class vendors.

**SunSpec has launched a Rapid Shutdown Certification Program**



Certification program communicates that system components work well with each other and have been tested to SunSpec requirements.

SunSpec Alliance offers Communication Signal for Rapid Shutdown certification through third party SunSpec Authorized Test Laboratories.

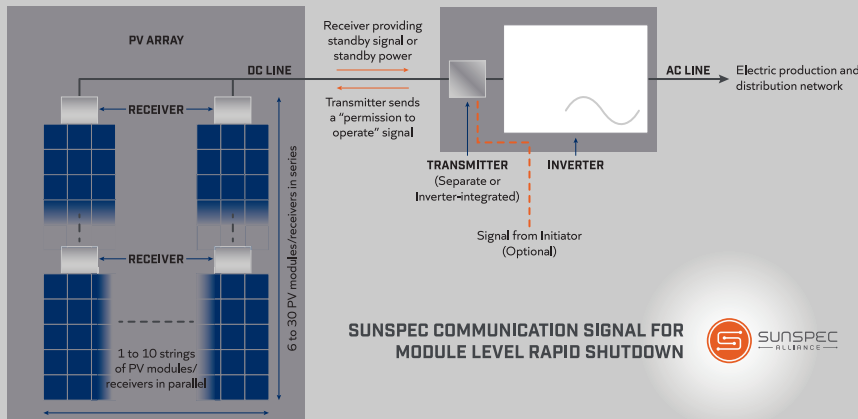
Find the full list of SunSpec Rapid Shutdown certified products at [certifications.sunspec.org](https://certifications.sunspec.org).

**Common term: Rapid Shutdown**  
**NEC code term: PV Hazard Control**

# SunSpec Communication Signal for Module Level Rapid Shutdown

A multi-vendor, multi-device communication solution to enable NEC 2017

**LOWERS COST, SAVES TIME, INCREASES CONSUMER CHOICE**



## SunSpec RSD Specification Contributing Companies & Early Adopters

- ABB
- Adesto Technologies
- AP Systems
- Canadian Solar
- Celestica Inc.
- Chint Power Systems – North America
- Delta Products Corp.
- Enphase Energy
- ET Solar
- Fimer
- Fronius International
- Ginlong Solis
- Hansol Technics Co.
- HiQ Solar
- Itek Energy
- Ingeteam
- JA Solar
- JMTHY
- LERRI Solar Technology Co.
- Integrated Solar
- Mersen Electrical Power
- MidNite Solar
- Neo Solar Power
- Omron Global
- OutBack Power
- Phoenix Contact
- SMA
- Samil Power
- Seraphim Solar USA Manufacturing Inc.
- Semitech Semiconductor
- Silfab Solar
- Solartec
- ST Micro
- Stäubli
- Sungrow
- SunPower
- Sunrun
- Sunpreme
- Suntech Power
- Talesun
- Tesla
- Texas Instruments
- UL LLC
- Yaskawa Solectria Solar
- Yingli Solar
- Zerun

## Market Benefits of SunSpec Rapid Shutdown Specification and Certification Program

### Improves System Safety

Provides a simple, robust, and reliable solution to comply with NEC 2017 requirements by reducing the voltage at module level to 1V per module.

Reports system health every time the sun comes up or the system is re-activated.

### Accelerates Industry Growth

Reduces installation and interconnection costs with standardized, Plug-and-Play system components.

Encourages job creation and new product development by increasing demand of DER installations.

Lowest cost solution to a fundamental market requirement.

### Instills Consumer Confidence

Open standard based on mature technology protects consumer differentiators with competitive pricing, multi-vendor choices, differentiated options and value availability.

Ensures system service and upgrades with choice of vendors and interoperable components.



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