

# RAPID SHUTDOWN SOLUTIONS COMPLYING WITH NEC 2014

## CODE REQUIREMENTS - NEC 2014 RAPID SHUTDOWN (Article 690.12)

PV system circuits installed in or on buildings shall include a rapid shutdown function that controls specific conductors in accordance with NEC 2014, Article 690.12 (1) through (5). These requirements include:

1. Rooftop PV installations
2. Rapid shutdown equipment placement:
  - a. 10 feet from array (equipment outside building) or
  - b. 5 feet from array (equipment inside building)
3. Shutdown to 30V & 240VA in 10 seconds
4. Correct stickers/signage
5. All PV equipment listed and identified

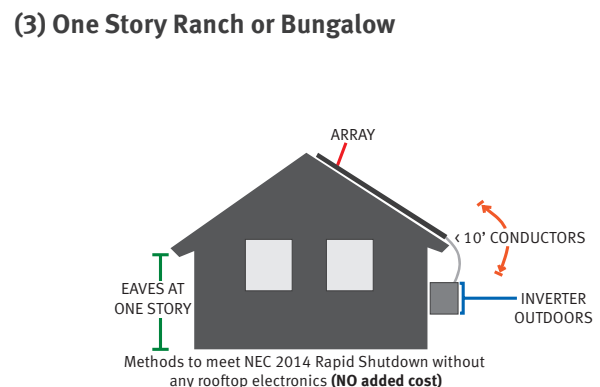
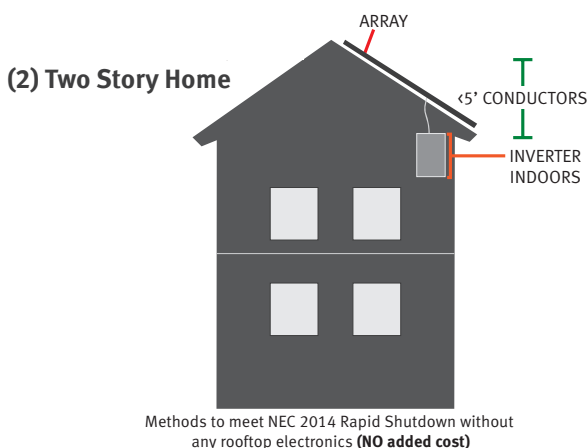
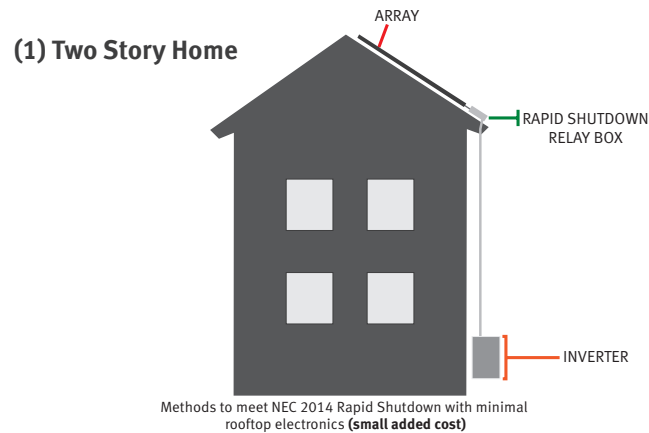


## RESIDENTIAL INSTALLATIONS

**SOLUTION:** Yaskawa - Solectria Solar Residential PVI 3800-7600TL inverters and Rapid Shutdown Combiner Box

**REQUIREMENTS:** Installer must wire 5VDC control signal to inverter from Rapid Shutdown Combiner Box.

**METHODS:**

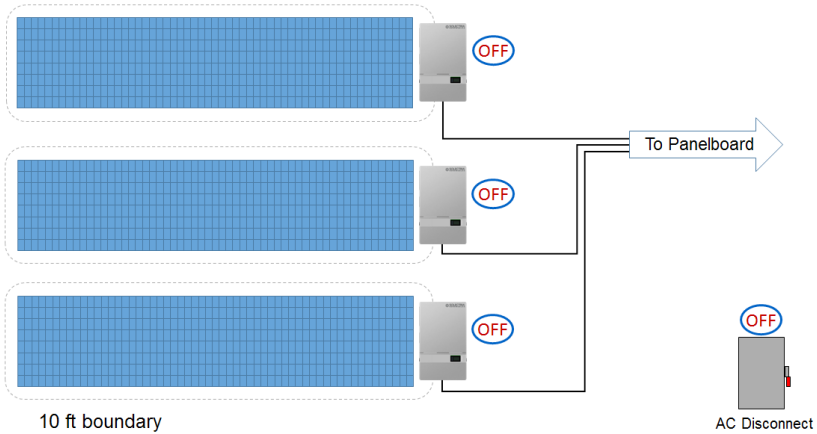


**COMMERCIAL INSTALLATIONS - THREE-PHASE STRING INVERTERS**

**SOLUTION:** Yaskawa - Solectria Solar PVI 14-36TL three-phase, string inverters

**REQUIREMENTS:** Place inverter within 10 feet of array (equipment outside), 5 feet of array (equipment inside) or use compatible third-party rapid shutdown combiners.

**METHOD:**

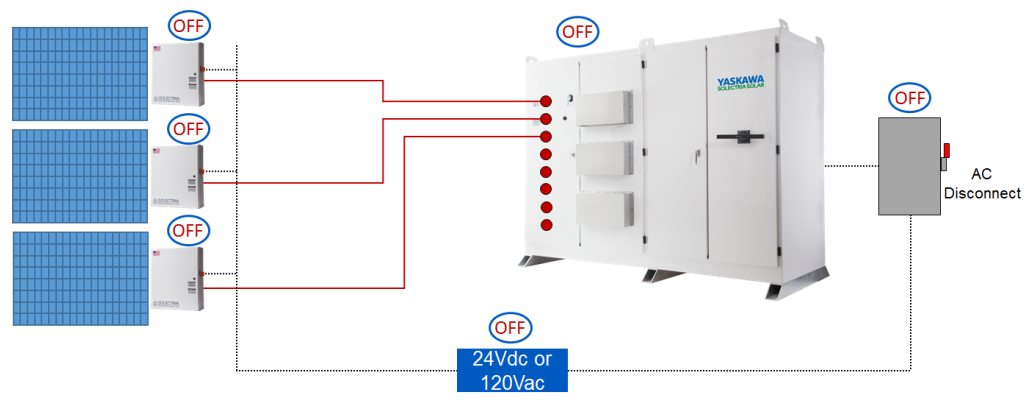


**COMMERCIAL & UTILITY-SCALE INSTALLATIONS - THREE-PHASE CENTRAL INVERTERS**

**SOLUTION:** Yaskawa - Solectria Solar PVI 50-100KW , SGI 225-500PE, SGI 500XT, SGI 500/750XTM inverters and ARCCOM

**REQUIREMENTS:** External Control Power REQUIRED for all ARCCOMs. Each ARCCOM contains an AC-DC power supply. The customer must supply external control power 120-277VAC to the AC-DC power supply. If a customer would like to use an external 24VDC control power instead, the internal control power from the AC-DC power supply to the main electronics board must be disconnected.

**METHOD:** PVI 50-100KW have DC Bleed Down Circuit  
 SGI 225-500PE, SGI 500XT, SGI 500/750XTM have DC Vacuum Contactors



**YASKAWA - SOLECTRIA SOLAR RAPID SHUTDOWN SOLUTIONS**

	YASKAWA - SOLECTRIA SOLAR INVERTER	ADDITIONAL EQUIPMENT REQUIRED
RESIDENTIAL INVERTERS	PVI 3800-7600TL	Rapid Shutdown combiner box (RSD-PVI-3800-7600TL)
COMMERCIAL INVERTERS	PVI 14-36TL	None OR 3rd party combiner box (based on inverter placement)
CENTRAL INVERTERS	PVI 50-100KW, SGI 225-500PE, SGI 500XT, SGI 500/750XTM	ARCCOM combiner box