Applicable Section of the Code.

- **Section 50** Solar photovoltaic systems. Now 64-2XX
- **Section 64** Renewable energy systems. (except Class 2 circuits)
- **Section 84** Interconnection of electric power production sources.
- Other general sections such as those that address conductor ampacites, grounding and bonding and wiring methods still apply.
- Now adopted throughout the country.
64-072, 64-074, 64-112, 64-200, 84-024, 84-030
Marking & warning labels

7) MUST COMPLY WITH CEC SECTION 64-1114 REGARDING AMPERE RATING OF OVER CURRENT DEVICES

TOTAL DC SOURCE
40 x 6.5Kw = 260 Kw

64-072 INVERTER AC OUTPUT

UNGROUNDED

64-200

DIAGRAM, RAPID SHUTDOWN, WARNINGS

LABEL:
‘WARNING: TWO POWER SOURCE PARALLEL SYSTEM’

DIAGRAM

LABEL:
‘DUAL SYSTEM DISCONNECT’

LABEL:
‘WARNING: TWO POWER SOURCE PARALLEL SYSTEM’

64-112 DO NOT RELOCATE
64-202 Allowed Voltage of PV Systems

• Dwellings are limited to 600V dc.
• PV source and output circuits between 750 and 1000V dc. (exempt from HV circuit protection and disconnecting rules)

A 1000V rated inverter can be used on a dwelling if the PV source and outputs are limited to 600V.
64-218 PV system rapid shutdown

• Applies to systems installed on buildings or structures where the PV output conductors are more than 1.5 m in length or more than 3m from a PV array.

• Shall limit PV source or output circuits to not more than 30 V and 240 V•A within 10 s of rapid shutdown initiation.
64-218 PV system rapid shutdown

Control Point

Output Conductors

3 m Boundary around array
Rapid Shutdown- Control Boxes

FRONIUS
SMA
ABB
SOLAR BOS
MIDNITE
SOLADECK

PHOTOVOLTAIC
SYSTEM RAPID
SHUTDOWN
INITIATOR
Enphase – Rapid Shutdown

PHOTOVOLTAIC SYSTEM RAPID SHUTDOWN INITIATOR
SolarEdge – Rapid Shutdown

- Drops to 1V per Optimizer

INCLUDED FOR SINGLE PHASE
NEED TO ADD FOR THREE PHASE

PHOTOVOLTAIC SYSTEM
RAPID SHUTDOWN INITIATOR
Inverter on the roof
Simple DC disconnect

PHOTOVOLTAIC SYSTEM RAPID SHUTDOWN DEVICE

<3M

< 30 Volts & 240VA within 10 sec ????????
Off Grid – Rapid Shutdown

PHOTOVOLTAIC SYSTEM
RAPID SHUTDOWN INITIATOR

< 30 Volts & 240VA within 10 sec ????????
Wiring Methods 64-210

Within an array

Protection of conductors.

Open conductors subject to damage during or after installation require mechanical protection.

greater than 30V where the array is not installed in readily accessible locations.

Cables & conductors shall be supported as per Section 12. (Within 300mm of each box & 1.5m thereafter. See Bulletin 50-1-).

• Rodent Protection
  • When arc fault protection is not module level, array cables shall be provided with mechanical protection, in the form of an enclosed raceway or other acceptable material to protect against damage from rodents.
64-210 SOLUTION
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