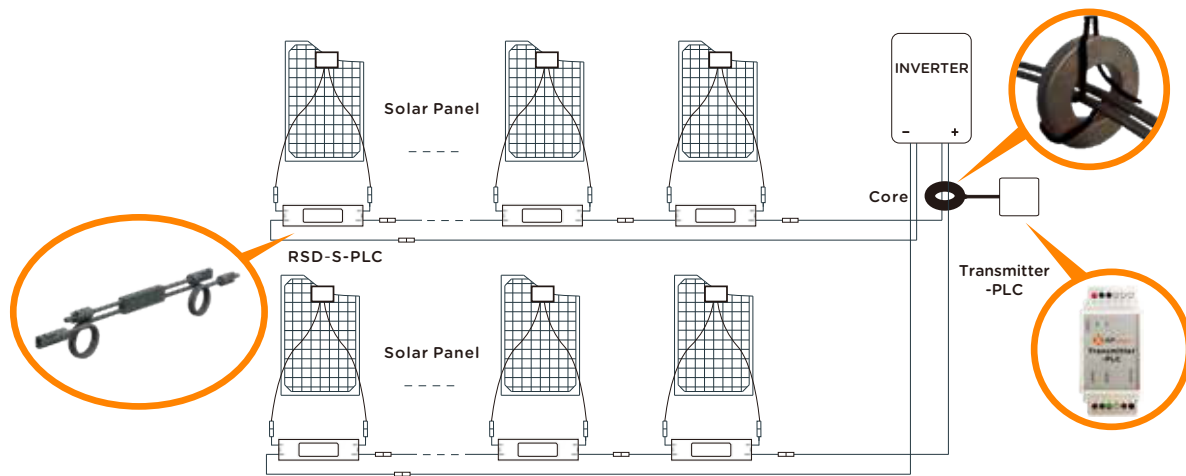


How to Check RSD-S-PLC Functional Status during Operation



RSD-S-PLC System

After AC Grid is turned on, the transmitter starts sending heartbeat signals, the RSD-S-PLC enables PV modules to generate power. The inverter input voltages show as total voltages in the array:

$$Vm1+Vm2+....Vmn = Vinputs$$

When AC Grid is turned off, the transmitter stops sending heartbeat signals, the RSD-S-PLC goes into RSD mode and shuts down the PV modules power outputs. Because each RSD-S-PLC can output minimal voltage of 0.7V during shut-down mode, by monitoring the total inverter input voltages, it is easily to calculate the total functioning RSD-S-PLC within the array:

$$0.7v * \text{Number of Receivers} = Vinputs$$