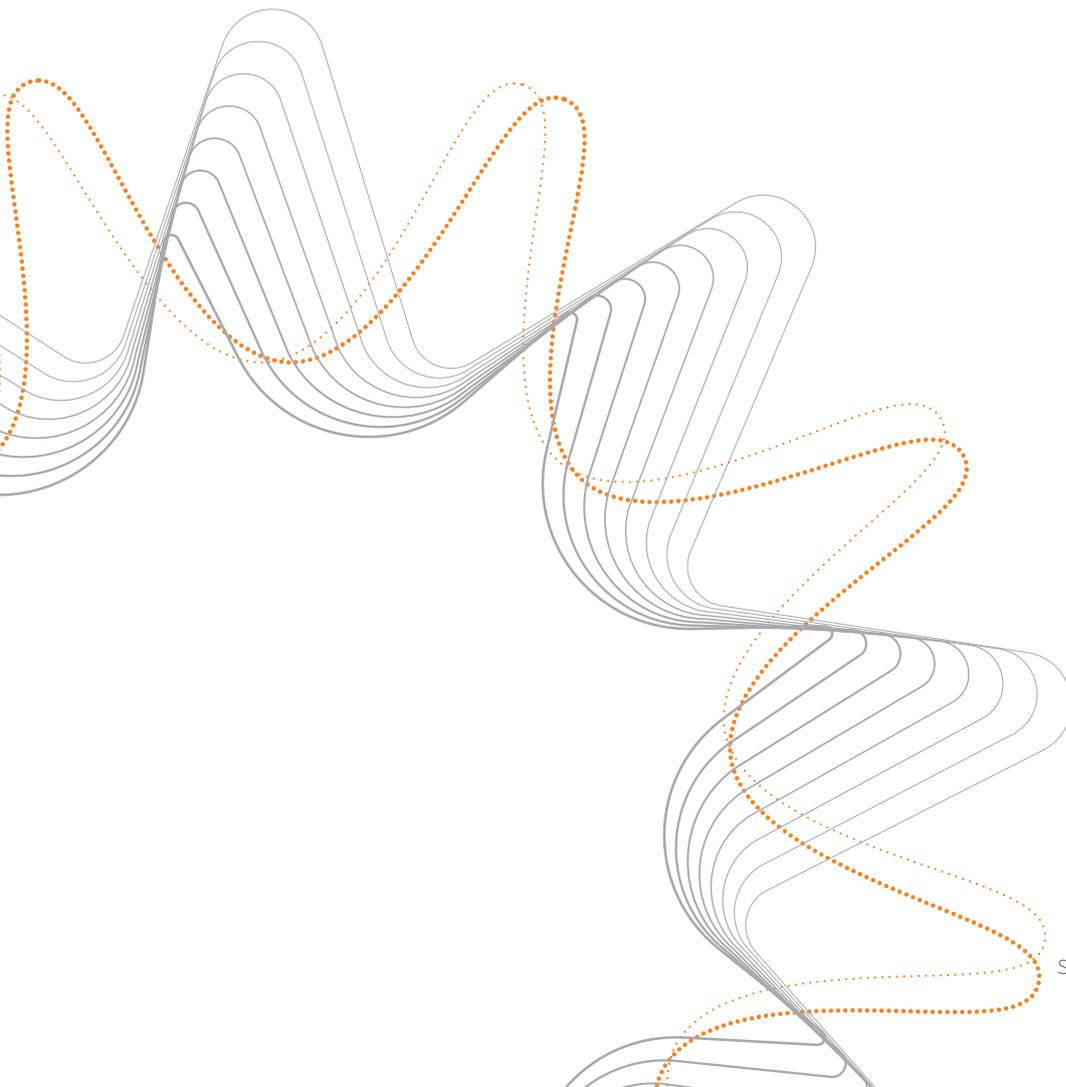


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EPISODE 76

# Export Power Management and Load Monitoring By CT



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## >> Background

Load Monitoring allows users to see what’s happening on their system in real time through the SolisCloud platform — including:

- Load-side power and energy.
- Grid voltage, current, power, and energy.
- 24-hour load monitoring (data is uploaded even at night).

This makes it much easier to understand household consumption and overall system behaviour.

This guide explains how to set up Load Monitoring using a CT clamp.

## >> Applicable Inverters

Below are the inverter series which support the CT solution for the export power management and 24H load monitoring.

Solution	Model	Specification	Inverter Series	Function 1	Function 2	Software Version support function 2
CT Solution	CTSA016-100A	CT:100A/33.33mA	S6-GR1P(0.7-3.6)K-M	√	√	V8903
			S6-GR1P(2.5-6)K	√	√	V8903
			S5-GR1P(7-10)K	√	√	V8903
			Solis-mini-(0.7-3.6)K-4G	√	/	/
			Solis-1P(2.5-6)K-4G	√	/	/
			Solis-1P(7-8)K-5G	√	/	/
			S6-GR1P(7-8)K2	√	√	V8903
			S6-GR1P(2.5-6)K-S	√	√	V4008

**Function 1: Export Power Management**

**Function 2: 24-hour Load Monitoring**

**Note:** Function 1 (export control) automatically includes Function 2.

**Important:** The CT solution is only suitable for systems with one inverter. For multi-inverter systems, use the EPM solution instead.

>> **How To Use**

**1. Check Your Inverter**

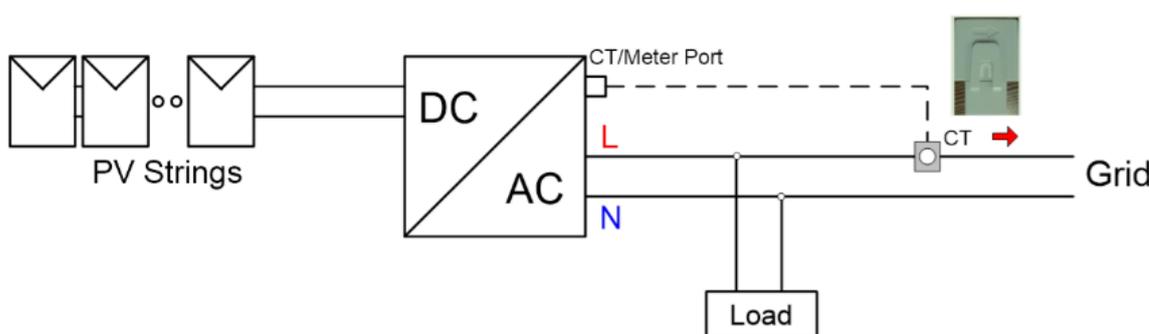
The CT method works only on Solis single-phase inverters with a built-in CT port. Some versions have a Meter Port instead — confirm with your Solis sales representative before ordering.

**2. CT Installation**

The CT clamp is used to detect power flow at the grid connection point. If export power reaches the limit you set, the inverter will automatically reduce output.

**Installation rules:**

Clamp must be installed on the live (hot) wire at the grid connection point. The arrow on the CT must face towards the grid. Follow the wiring guidance shown in Solis documentation.



Cable connection of CT solution

**3. Operation step**

Below are the two setup methods depending on the function you want.

**Function 1: 24-Hour Consumption Load Monitoring Only (Smart Sensor)**

After installing the CT, follow the steps below to enable the 24-hour load monitoring function:

**Step 1:** Open “Internal EPM Set” on the inverter LCD screen



**Step 2:** Select “LoadMonitor\_CT” (Option 5)



**Step 3:** Enable the 24H Switch



**Step 4:** Configure the Solis monitoring system (Refer to the monitoring device manual)

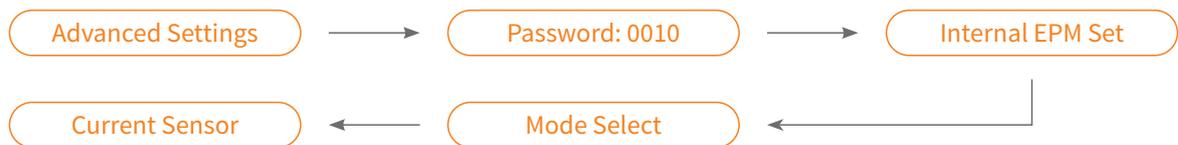
### Function 2: Export Power Management + 24-Hour Consumption Load Monitoring (Smart Sensor)

After installing the CT, follow the steps below to enable export power management together with 24-hour load monitoring:

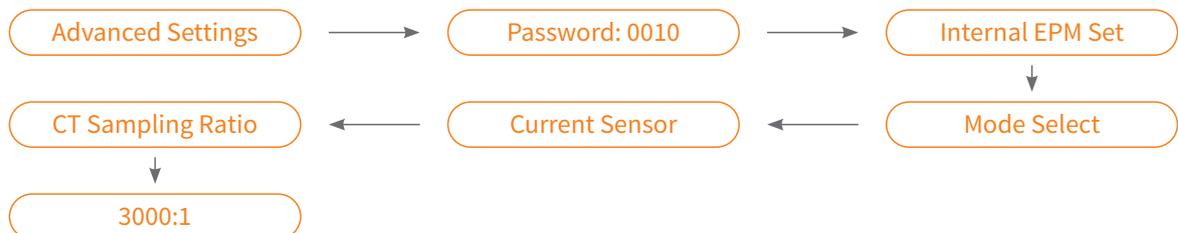
**Step 1:** Open “Internal EPM Set” on the inverter LCD screen



**Step 2:** Select “Current Sensor” (Option 6)



**Step 3:** Set the “CT Sampling Ratio” to 3000:1



**Step 4:** Enable the 24H Switch



**Step 5:** Set the Backflow Power Limit

Choose how much power your system is allowed to export to the grid.



**Step 6:** Ensure “Failsafe ON/OFF” is set to ON (Default is ON)



**Step 7:** Configure the Solis monitoring system (Refer to the monitoring device manual)

## Conclusion:

>> Solis inverters with CT support can:

- Monitor load consumption 24 hours a day, even at night.
- Control export power dynamically, adjusting inverter output to prevent unwanted export.
- Improve system stability and comply with local export-limit rules.

For example, if your household load drops, the inverter will automatically reduce output so the system does not send power back to the grid.

Disclaimer: The information above is intended for qualified electrical professionals and trained solar installers. CT installation and inverter configuration involve working with live electrical systems. Please ensure all work is carried out safely, following local regulations and standards.