Application Note:
Large External Current Transformers for Sol-Ark Commercial (3-Phase) Inverters

Introduction

This document explains how to select and program larger CTs for Sol-Ark C&I inverters, including the 30K-3P-208V and 60K-3P-480V models. The 30K and 60K inverters come with 300 A CTs. Larger services, such as 600 A or 1200 A, may need larger CTs.

Recommended Hardware

The following CT sensors are recommended for PCS operation of Sol-Ark 30K-3P-208V and 60K-3P-480V inverters.

Note: The installer must choose the correct CT sensor for the system.

Manufacturer	Model	Input:Output	Programmed CT Ratio	Window Size	**Website**
		600 A:5 A	12000:1	80.0 mm x	
AccuEnergy	AcuCT-3135R	800 A:5 A	16000:1	90.0 mm	**Brochure**
		1200 A:5 A	24000:1	(3.10” x 3.50”)	
		600 A:5 A	12000:1	105.0 mm x	
AccuEnergy	AcuCT-4161R	800 A:5 A	16000:1	155.0 mm	**Brochure**
		1200 A:5 A	24000:1	(4.10” x 6.10”)	

Connection and Installation

Connect the AccuEnergy CT sensor to the **CN1** terminals labeled **5A > Input > 1A.**

CT Phase A (Pins 1 and 2) [White +, Black -]

CT Phase B (Pins 3 and 4) [White +, Black -]

CT Phase C (Pins 5 and 6) [White +, Black -]

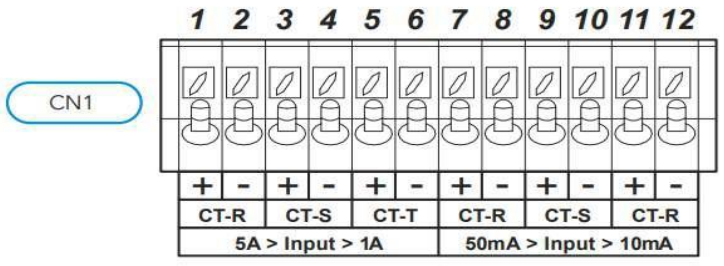


Figure 1: 30/60K Inverter CT Wiring Area

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Make sure the CT sensor arrows point toward the inverter. This helps ensure accurate measurements.

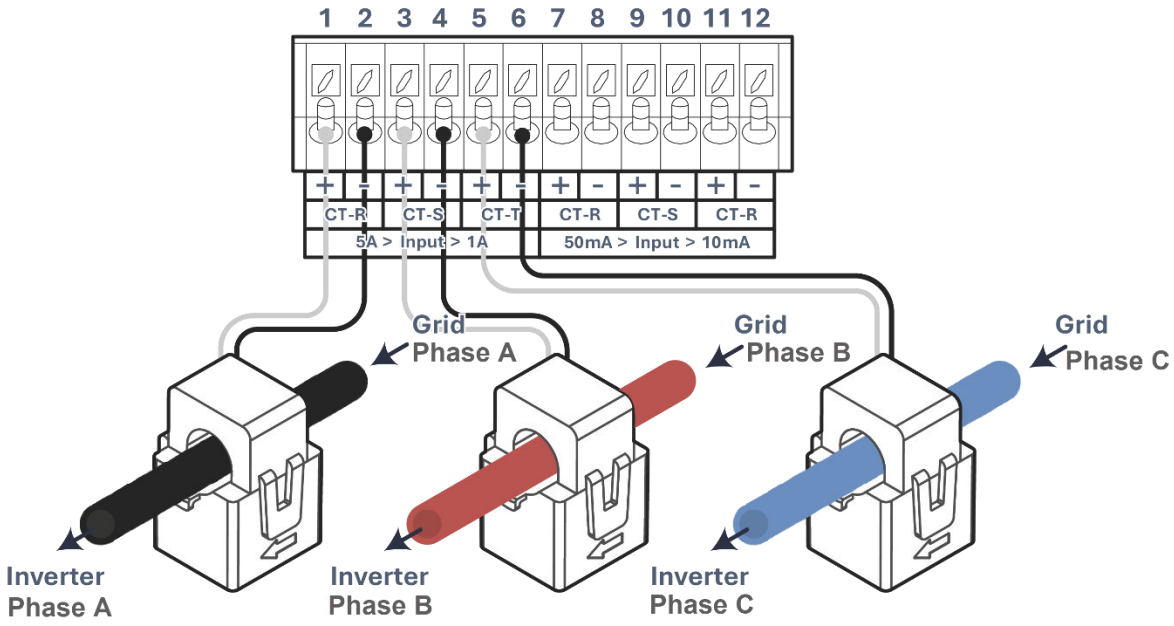


Figure 2: Detailed View of CT Connections and Direction

Note: For 277/480 V systems, use **brown** for Phase A, orange for Phase B, and yellow for Phase C.

Programming

Set the CT ratio to the value shown in the table on page 1.

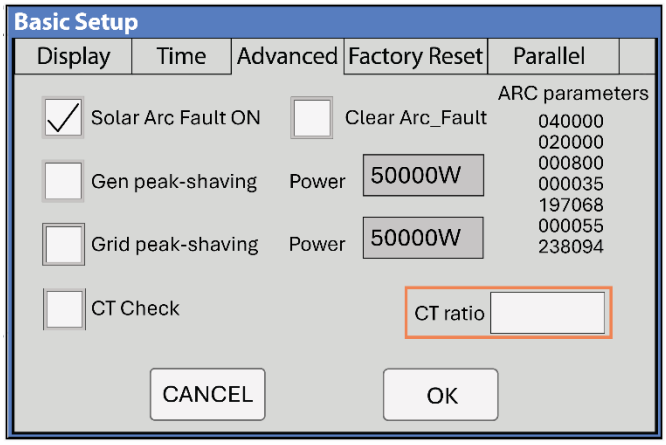


Figure 3: Inverter Screen for Setting the CT Ratio

Enable **Limited Power to Home.** This allows the inverter to use the CT current readings.

Note: Use these CTs only with Sol-Ark Commercial products. DO NOT USE these CTs with Sol-Ark Residential products.

Document Revision History

Rev.	Date	Author	Description of Changes
01	2024	Jose Rubio	Document created
02	09/01/2026	Itzel Sanchez	Minor updates