



wattwatchers
DIGITAL ENERGY

A6M+ONE INSTALLATION GUIDE



The Wattwatchers A6M+One can be used for power purchase agreements (PPAs), other off-market billing, large-scale generation certificates (LGCs), meeting NABERS and Green Star requirements, and more...



For the full A6M+One comprehensive installation guide, scan the QR code or go to:

<https://service.wattwatchers.com.au/a6mone-comprehensive-installation-guide> ✨

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SAFETY GUIDE

YOU MUST READ THE FULL SAFETY MANUAL BEFORE INSTALLATION!

You must read the full safety manual given to you before installing the 6M+One. The safety manual contains information and advice on how to avoid damaging the Auditor device, and how to avoid personal injury or death. You will find a copy of the safety manual in the link below or by scanning the QR code.



FIND THE SAFETY MANUAL HERE

Scan QR code to view the complete safety manual or go to:

<https://service.wattwatchers.com.au/safety-manual>



The Auditor device has a warning symbol (see on the left) on the side of the Auditor device which indicates that the device may cause electric shock to a person if the device is opened, which can result in personal injury or even death. The warranty will also be voided if the device is opened or otherwise tampered with, without written authority from Wattwatchers.

To prevent safety risks, including the potential for injury or death, please use the test and short-circuit blocks with the billing current transformers (CTs) that are supplied for the CET PMC meters.

Never connect a billing CT—which has a 5A output—to the Auditor device. Billing CTs are only designed for connecting to the CET PMC meters.

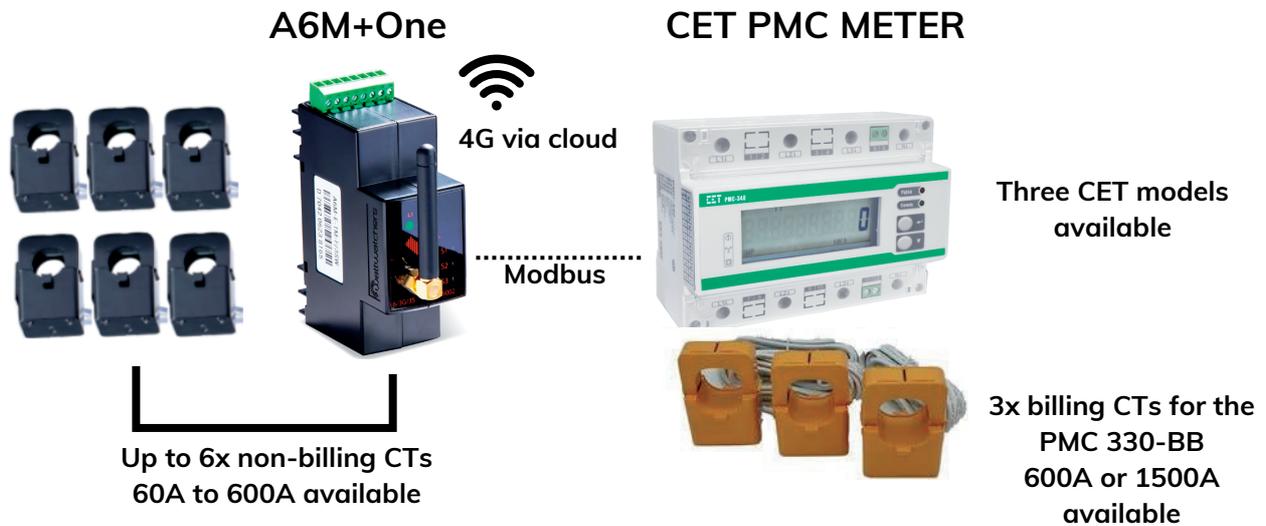


WARNING: Billing CTs have a potential of **5 AMPS on the secondary side** when connected. If exposed to the open terminal when the CT is operational, there is a risk of serious injury or death.

The Auditor device must be installed by a licensed electrician, or an individual with equivalent qualifications as required by the laws of the relevant state or country. The installer must possess comprehensive knowledge of applicable standards and directives within the jurisdiction where the device is being installed.

The warranty will be voided if the device is installed by someone who does not meet the minimum licensing requirements for electrical device installation. The installer must adhere to this safety guide, as well as the rules, regulations, and laws of the state/country where the device is being installed. Failure to comply with the safety guide will also void the warranty. Please read the full safety manual in the link above.

OVERVIEW OF THE A6M+ONE PACKAGE



WHAT COMES IN THE A6M+ONE PACKAGE

1x A6M+One

- 1x 4G stubby antenna
- 1x Green plug for power (for the top)
- 1x Green plug for CTs (for the bottom)
- 1x Modbus cable with connector

1x CET PMC meter

- 1x resistor (for long comms cable runs if signal becomes weak)
- 3x Billing CTs (if applicable)

OVERVIEW OF THE A6M+ONE



- Single phase, two phase or three phase at 80–260VAC per phase
- This device is used to monitor loads from 60A to 600A using CTs and cables up to 36mm in diameter.
- Modbus interface for the CET PMC meter
- Communicates via 4G
- Can be used with the MyEnergy app or in our Fleet tool to monitor circuits independent of the PMC meter

OVERVIEW OF THE PMC METER TYPES

PMC 220



**Single phase PMC—63A
Max. via direct connection**

- Up to 63A direct connection
- NMI M6 Pattern Approved
- Din mountable
- Fits cables up to 25mm diameter

PMC 340-BA



**Three phase PMC for circuits up to
100A per phase via direct connection**

- PMC-340-BA current pass through meter up to 100A (per phase)
- NMI M6 Pattern Approved
- DIN mountable
- Fits cables up to 35mm diameter

PMC 340-BB



**Three phase PMC For circuits up to
1500A per phase via CT connection**

- Compatible only with 600A or 1500A billing CTs (per phase)
- NMI M6 Pattern Approved
- DIN mountable
- Fits cables up to 80mm diameter



Billing CTs for the 340-BB



STEPS TOWARD A SUCCESSFUL INSTALLATION

- Step 1. Mount the A6M and the PMC Meter**
- Step 2. Follow the wiring diagrams**
- Step 3. Watch the Onboarding video**
- Step 4. Use Onboarding to commission the Auditor**
- Step 5. Apply the silver stickers**
- Step 6. Take photos of your installation**

TIPS

MAKE SURE YOU HAVE AN ONBOARDING ACCOUNT

Make sure you have access to onboard the device before going to the site. See the 'HOW TO USE ONBOARDING' page for more info.

TAKE SPARE PARTS

Take a spare A6M+One pack if you have one and an external high-gain antenna.

LABEL THE CTS ON BOTH ENDS

Label all the CTs on both ends before you install. This will save a lot of headaches if you need to retrace any cables for problem-solving.

APPLY THE SILVER STICKER

You will have two silver serial number label stickers. Apply one on the front of the Auditor (don't block the lights) and one below the circuit breaker feeding it.

HOW TO USE ONBOARDING



Once you have installed the device and it's powered up, it's time to Onboard the device!

Make sure your Onboarding account has access to the device

Please make sure the fleet manager has arranged your access to the device. If you do not have login access to the device, the fleet manager must request your access to be set up by Wattwatchers Support. Installers cannot request access directly to support.

Already have an account? Great! But remember to ask the fleet manager if you are added to their account as an installer so you can onboard their devices.



Watch our 6 minute Onboarding tutorial

Scan the QR Code below or use the link to watch our YouTube video on how to onboard a Wattwatchers device.

<https://www.youtube.com/watch?v=1EKZAECABgs>



Use our Onboarding tool

Scan the QR Code below or use the link to access Onboarding, so you can commission the Auditor

<https://wattwatchers.app/>



Start

Channels

Energy

+ Modbus

USING THE MODBUS TAB IN ONBOARDING

The Modbus tab helps you validate the readings

You don't need to pair or add the PMC meter, as it will be automatically detected once the Modbus cable has been correctly wired to the Modbus inputs of the A6M.

Power factor (PF) should always be in a positive state and not show a negative sign. You want to see a good range between 0.8 and 1.0 when sufficient load is present

The Start, Channel and Energy screens are explained in the Onboarding video

Modbus device: PMC-340B

	Volts	Amps	PF
Phase A (L1)	244	61.33	1.00
Phase B (L2)	246	59.14	1.00
Phase C (L3)	245	60.84	1.00

0.8-1.0 ✓

12:25:00 PM 5 mins

VALIDATE READINGS WITH A CLAMP METER ✓



TROUBLESHOOTING

NO LIGHTS ON THE AUDITOR

Check for voltage on the device. If voltage is present but all lights are still off, make sure green plug is seated correctly and power cycle the device.

L3 OFF OR L3 FLASHING

This indicates that the Auditor has poor/no signal. Improve signal by installing a high gain 4G antenna. Contact Support to see if stock is available.

NO LIGHT/ RED LIGHTS ON MODBUS INDICATOR (MB)

The link below contains information to help you troubleshoot a Modbus Connection Issue (Red Modbus Light):

<https://service.wattwatchers.com.au/troubleshooting-Modbus-connection-issue-red-Modbus-light> ✨

FAQs

CAN THE CT CABLES BE EXTENDED?

Yes, the CT cables can be extended up to 10m. Contact us if you need recommended cable specifications.

HOW FAR APART CAN THE PMC AND THE AUDITOR BE?

We recommend avoiding extending beyond 50m, if possible.

CAN I USE AN EXISTING BREAKER TO FEED THE A6M+ONE?

Yes, just remember to follow the electrical rules of your jurisdiction.

Looking for an answer you can not find here?

Information regarding software, hardware, FAQs, and more can be searched in our service page by scanning the QR code or going to:

<https://service.wattwatchers.com.au> ✨

Service page



SUPPORT

Support request



Need help? You can lodge a support request by using the link below, or by scanning the QR code (to the left). You can also send an email to support@wattwatchers.com.au

Support responds via email only

<https://wattwatchers.com.au/support/submit-request> ✨



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A6M + ONE WIRING DIAGRAMS

Wiring diagrams are intended to be used as a guide only.

PHASE 1

PHASE 2

PHASE 3

NEUTRAL

N

P₃

P₂

P₁

D+

▽

D-

WHICH PMC METER DO YOU HAVE?

Before finding your wiring diagram,
find your PMC meter first

1 PHASE DIRECT CONNECT



PMC-220
(Single phase)
Page 12

3 PHASE DIRECT CONNECT

Terminals 1,2,3 and 4 are all
blanked out.



PMC-340-BA
(Direct connection)
Page 13

3 PHASE CT CONNECT

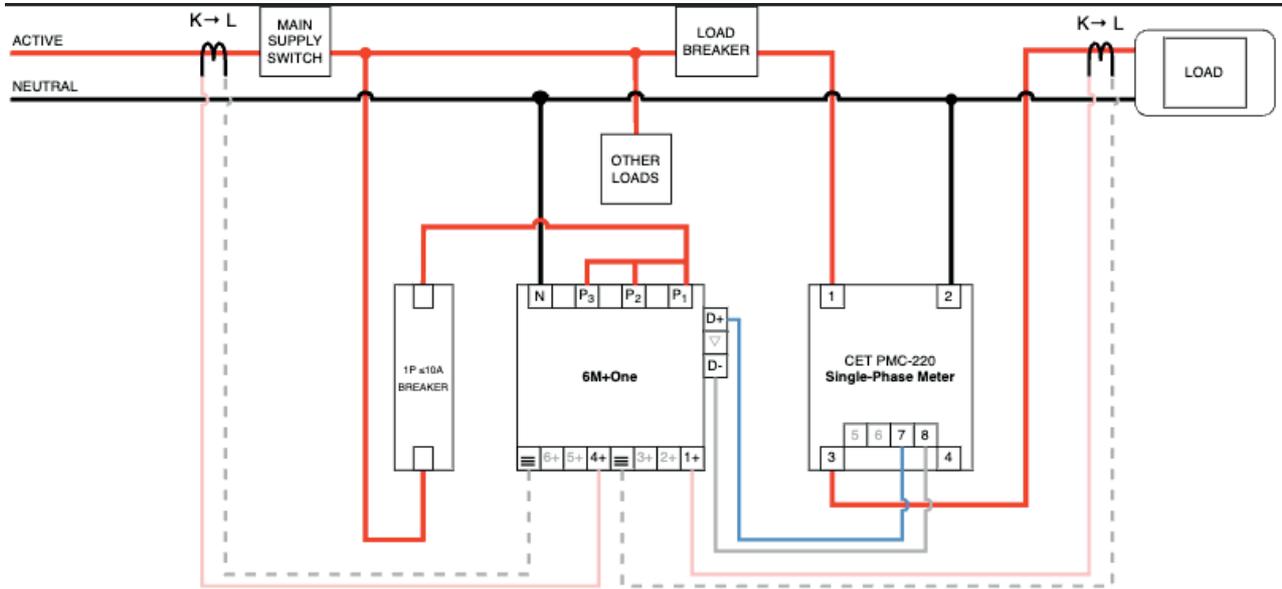
Terminals 1,2,3 and 4 are all
present.



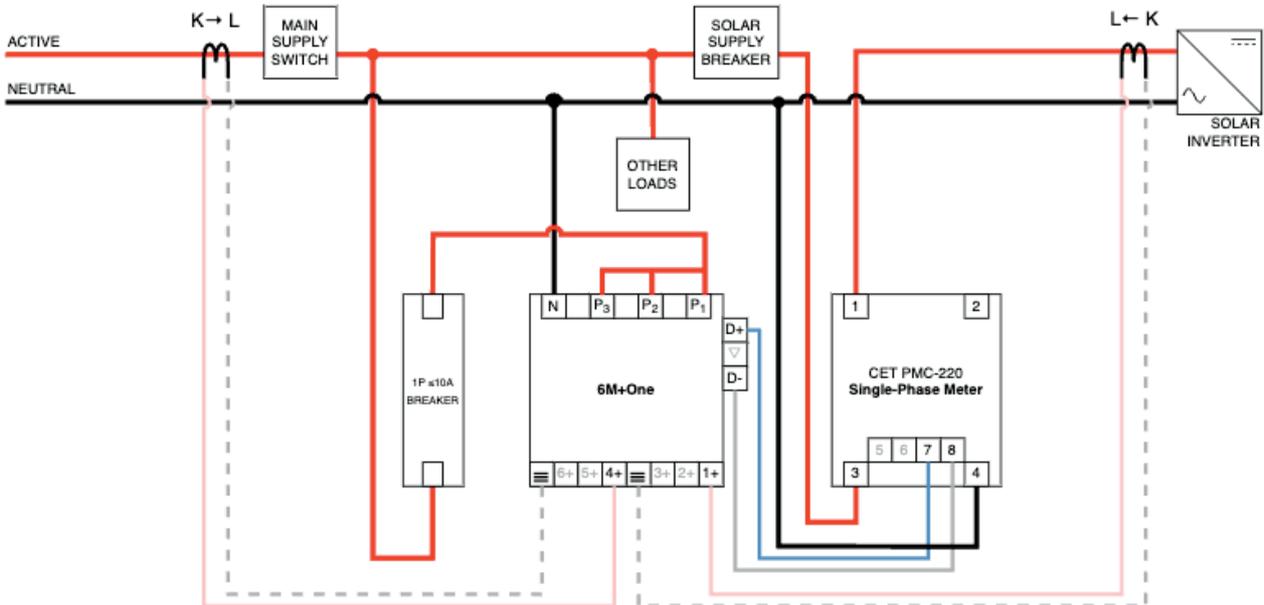
PMC-340-BB
(CT connection)
Page 14

PMC-220 (Single Phase)

Auditor is monitoring: Mains and Load
 PMC is monitoring: Load



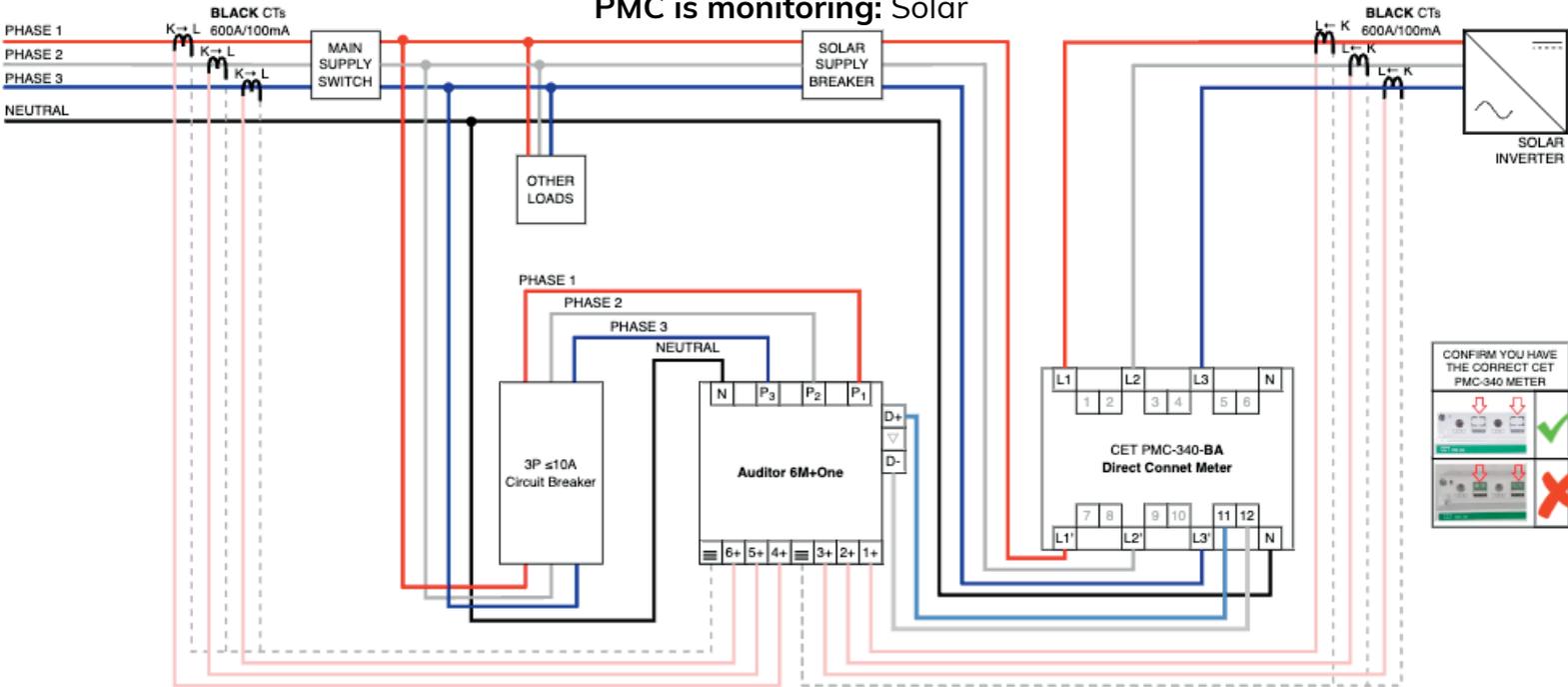
Auditor is monitoring: Mains and Solar
 PMC is monitoring: Solar



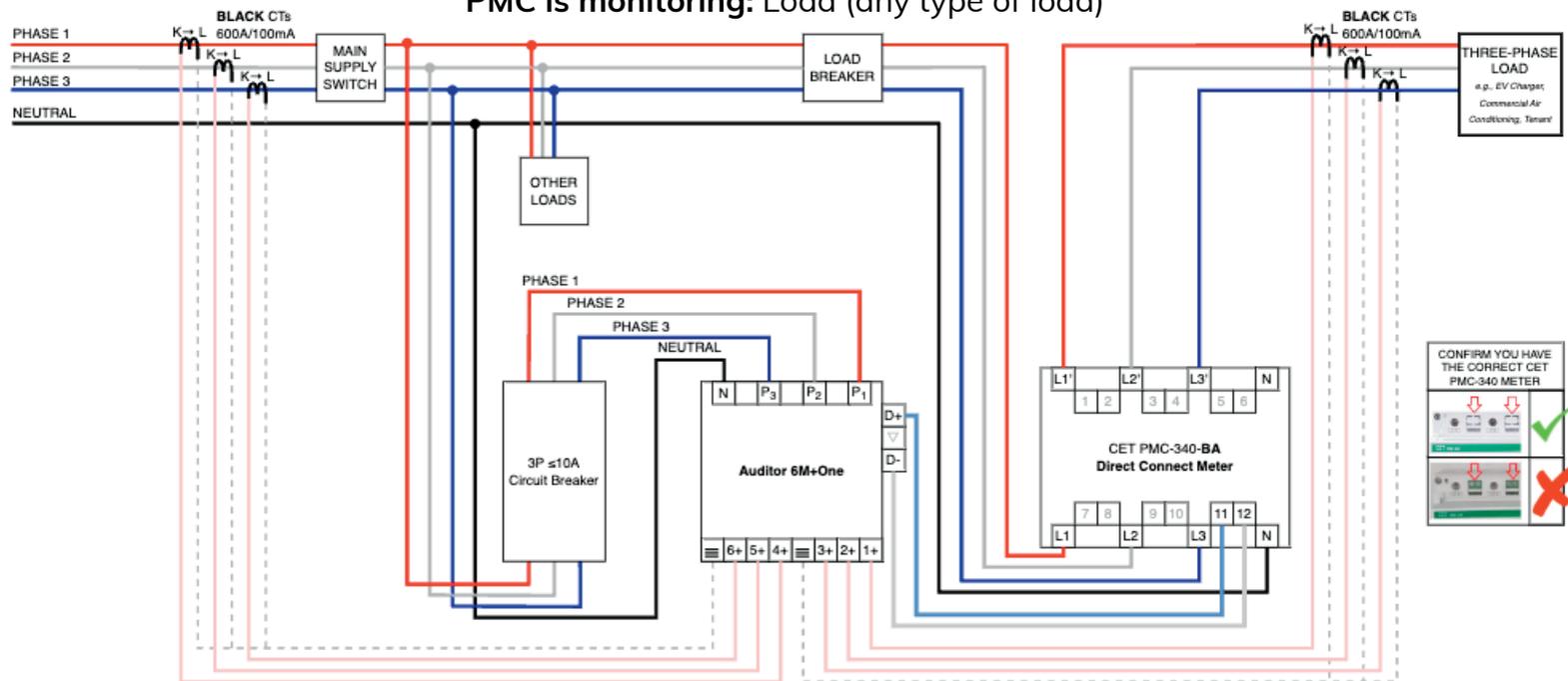
Solar	Arrow (K→L) needs to point away from Inverter
Grid	Arrow (K→L) needs to point away from Grid
Load	Arrow (K→L) needs to point towards the Load

PMC-340-BA (Direct connection)

Auditor is monitoring: Grid and Solar
 PMC is monitoring: Solar



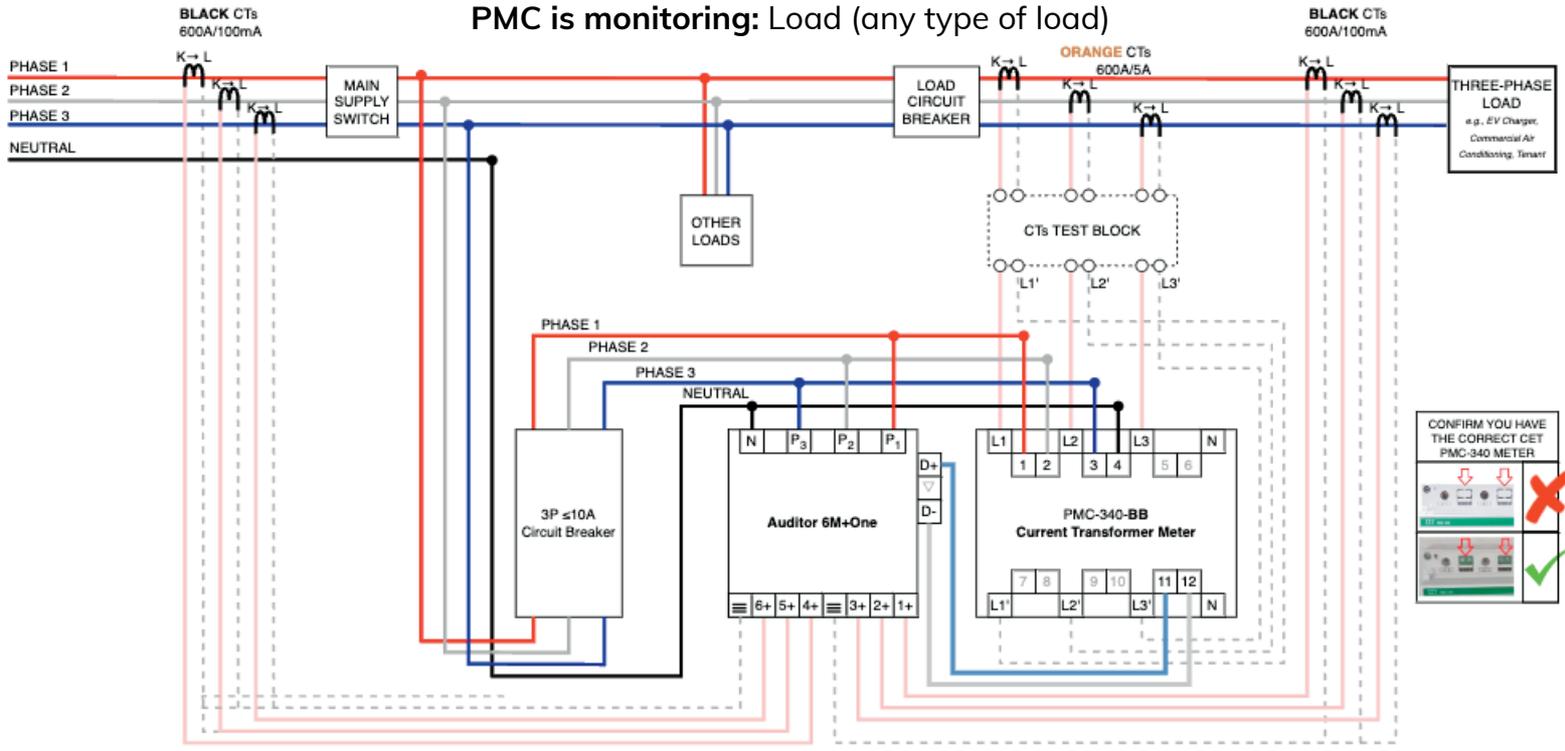
Auditor is monitoring: Grid and Load
 PMC is monitoring: Load (any type of load)



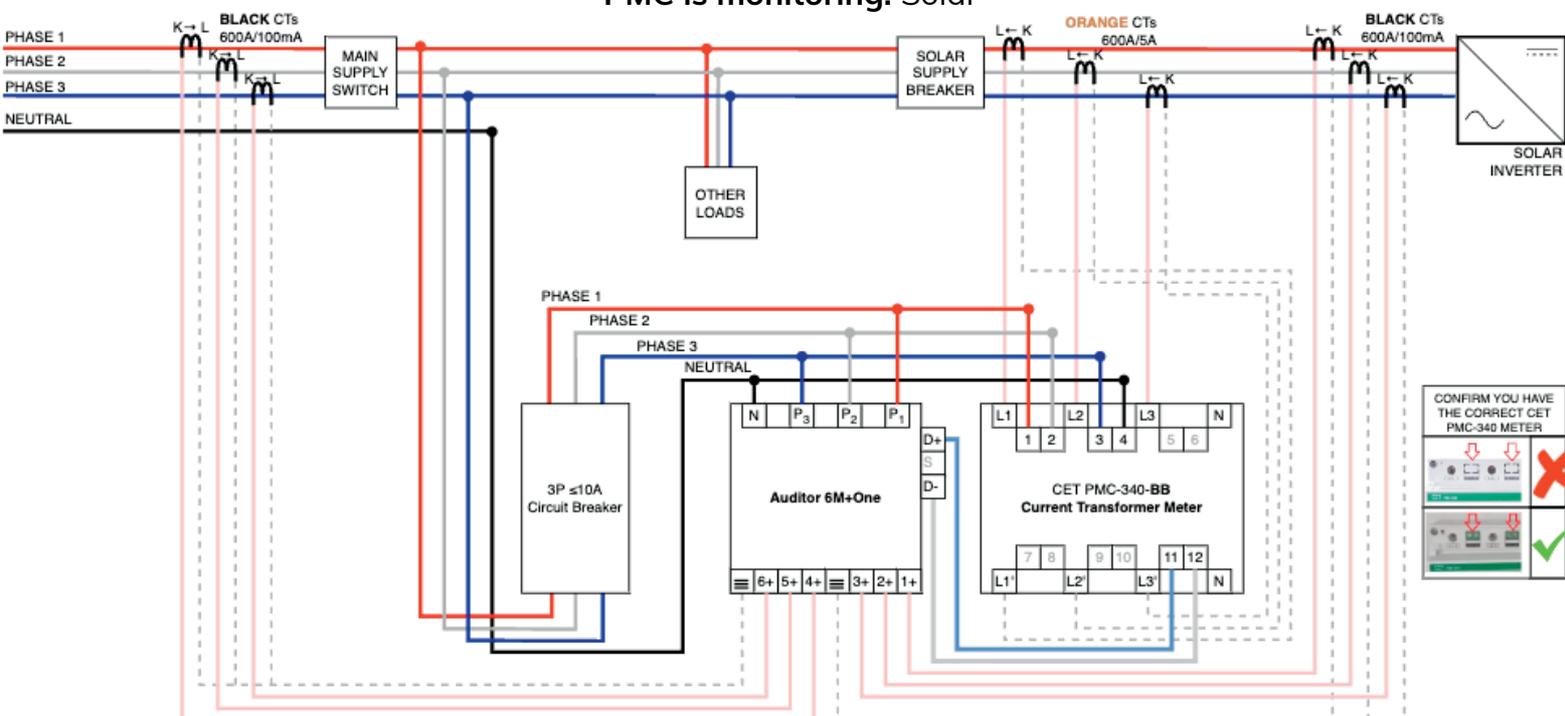
Solar	Arrow (K→L) needs to point away from Inverter
Grid	Arrow (K→L) needs to point away from Grid
Load	Arrow (K→L) needs to point towards the Load

PMC-340-BB (CT connection)

Auditor is monitoring: Grid and Load
 PMC is monitoring: Load (any type of load)



Auditor is monitoring: Grid and Solar
 PMC is monitoring: Solar



Solar	Arrow (K→L) needs to point away from Inverter
Grid	Arrow (K→L) needs to point away from Grid
Load	Arrow (K→L) needs to point towards the Load



WARNING: Billing CTs are potentially dangerous as they have a 5A output. Turn off all power to the device and circuits being monitored when working with the billing CTs.