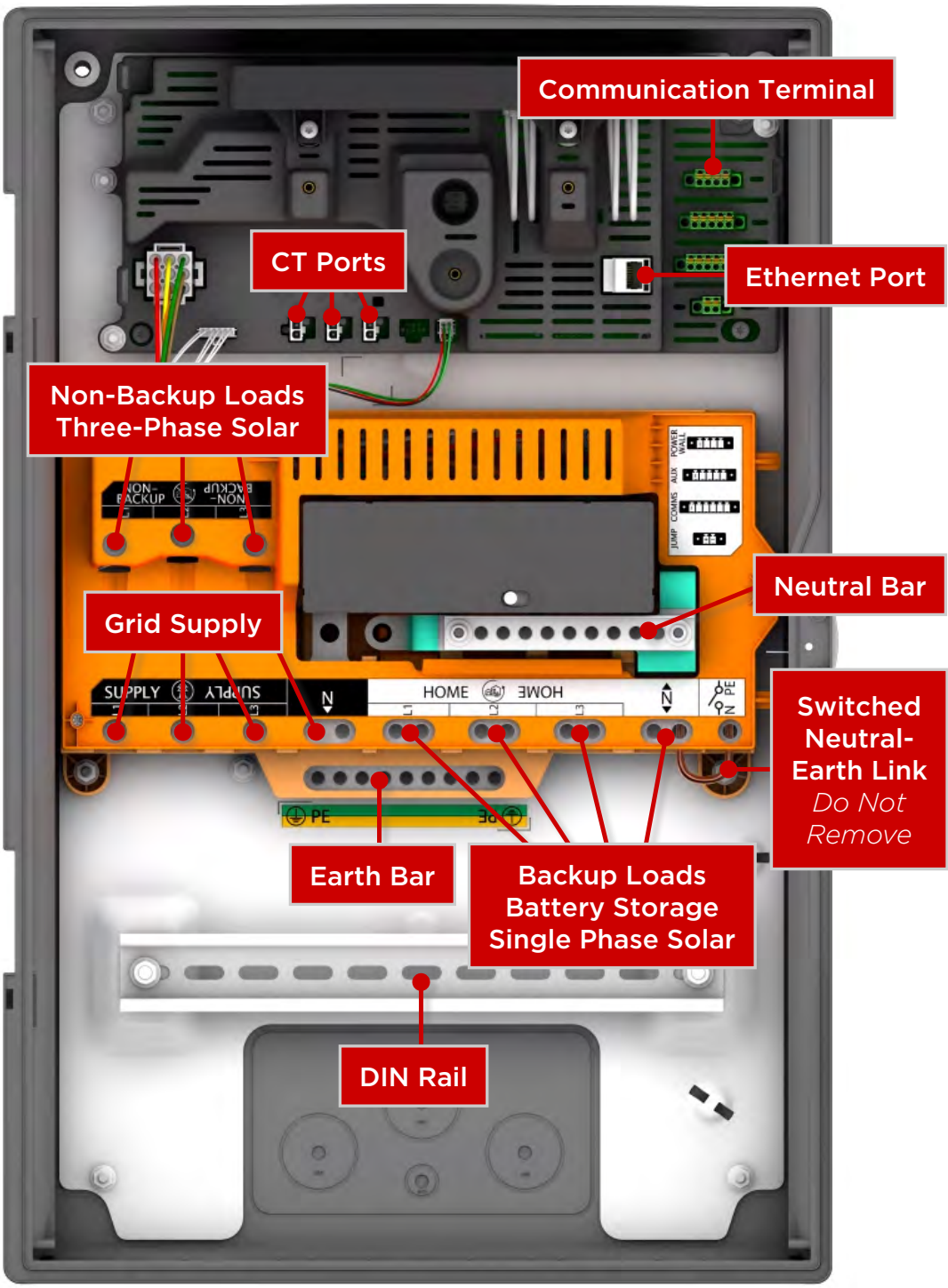
View Powerwall 2 AC Installation Manual

BACKUP GATEWAY 2 OVERVIEW



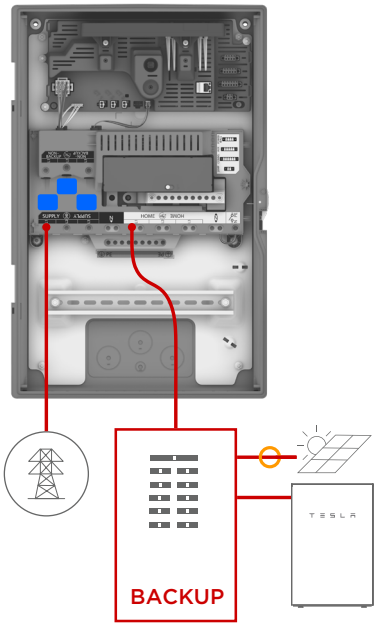
SYSTEM CONFIGURATIONS

WHOLE HOME BACKUP

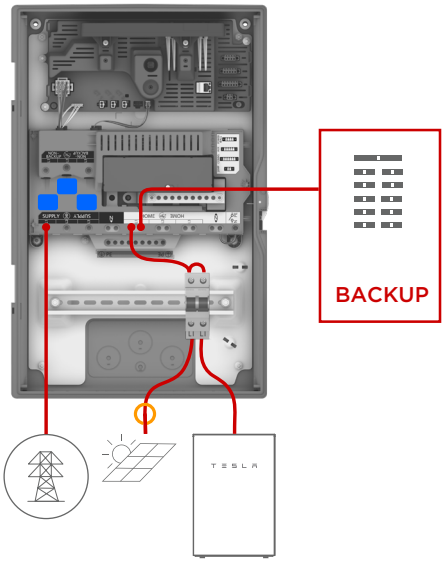
All single phase and/or solar loads can be supported by Powerwall

Whole **Site** monitored with integrated CTs

All **Solar** monitored with auxiliary solar CT



Powerwall and Solar in existing panel



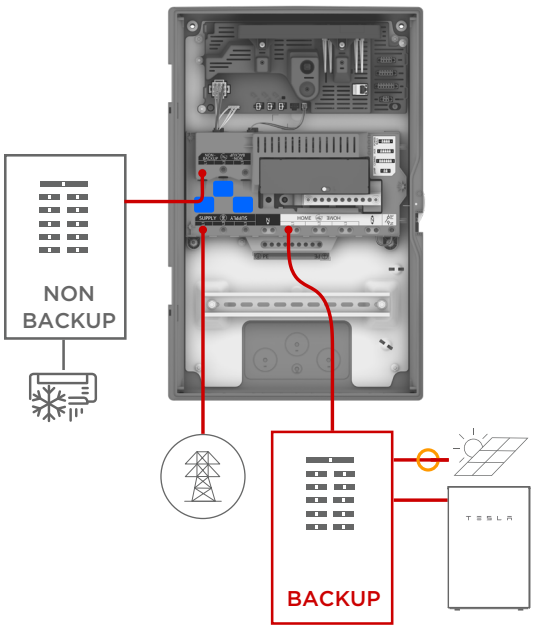
Powerwall and Solar on DIN Rail

PARTIAL HOME BACKUP

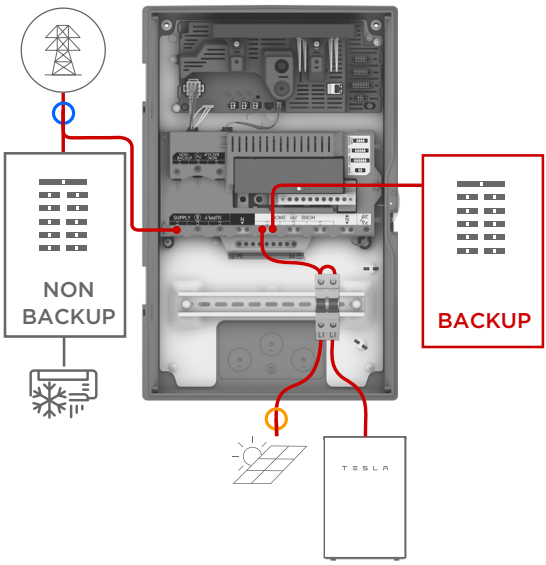
Three-phase or large loads and/or solar cannot be supported by Powerwall

Whole **Site** monitored with integrated CTs or auxiliary site CT

All **Solar** monitored with auxiliary solar CT



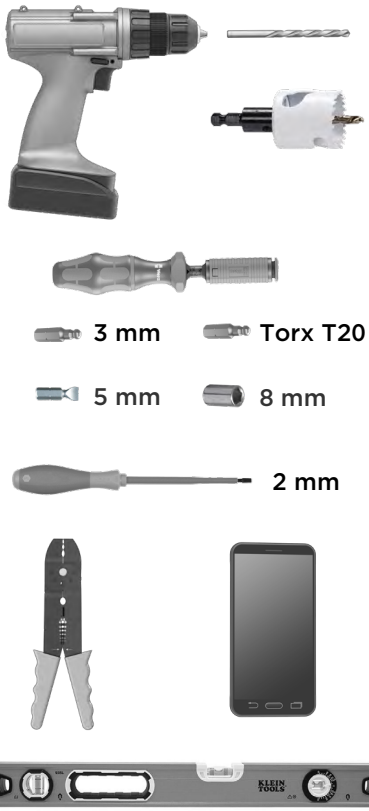
Non-backup loads downstream from Gateway



Non-backup loads upstream from Gateway

See **System Wiring Diagrams** in the *Installation Manual* for detailed wiring diagrams of common configurations

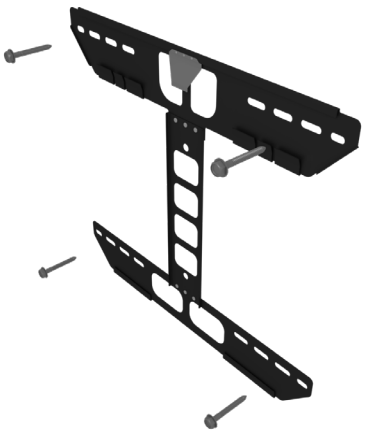
REQUIRED TOOLS

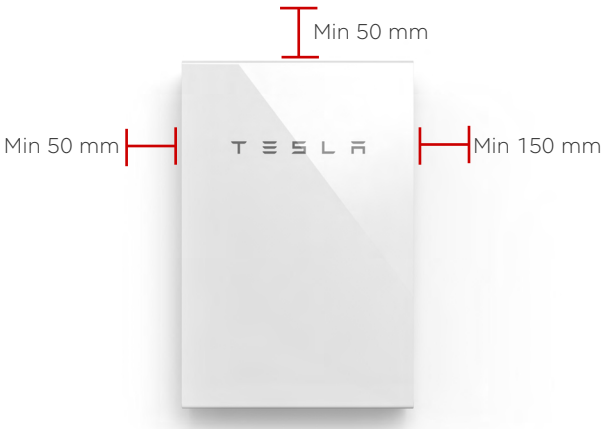


SUGGESTED TOOLS

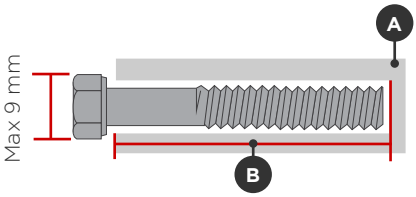
MOUNT POWERWALL

1





Clearance Requirements



A Material	B Minimum Embedment
Wood Studs	64 mm
Plywood	7 mm beyond back of plywood (min 38 mm plywood)
Metal Studs	3 threads beyond stud / backing
Concrete / Masonry	50 mm
Channel Strut	64 mm into wood studs 3 threads beyond metal studs

See **Powerwall Mounting Details** in the *Installation Manual* for additional mounting details and clearance requirements

2

3

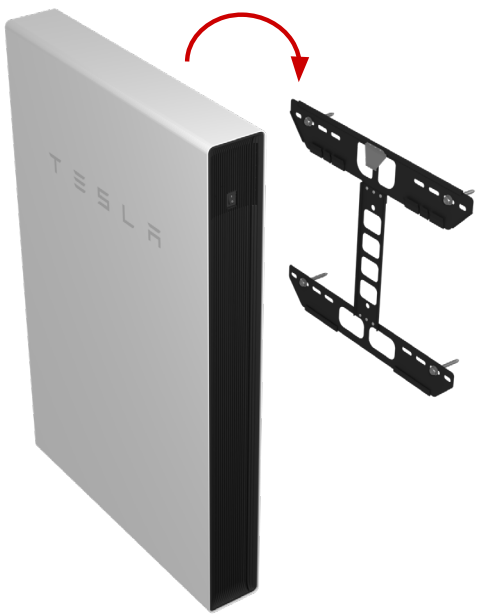
4

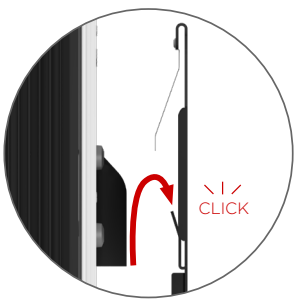
OR

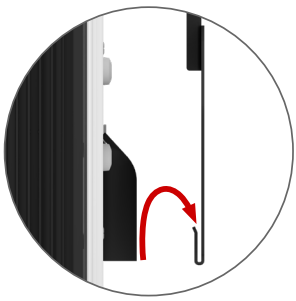
Side Cable Entry

Rear Cable Entry

5

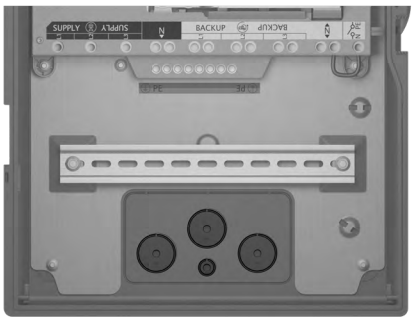






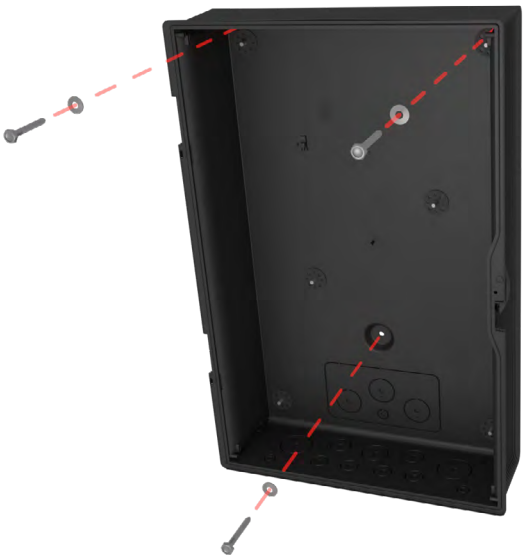
MOUNT THE BACKUP GATEWAY

6



- M40
- M25
- M32
- M20
- M12

7

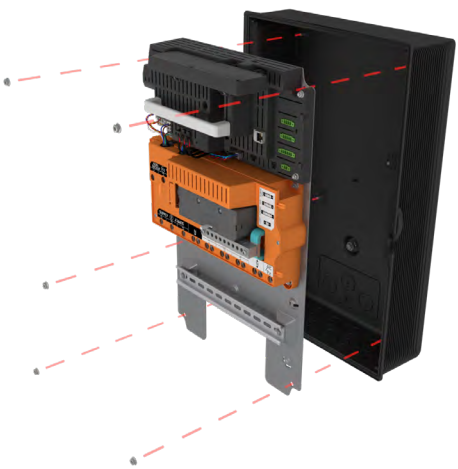


x3 included

Sealing washers must be installed to maintain IP55 rating when installed outside

8

x5 included | 8 mm | 6 Nm



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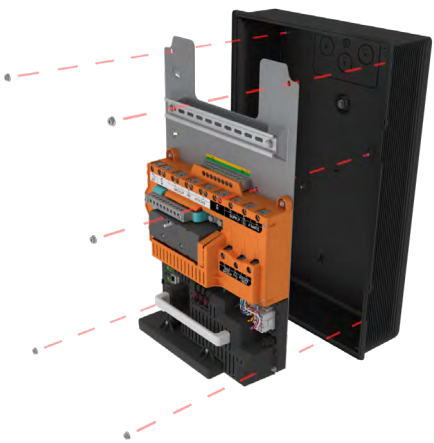
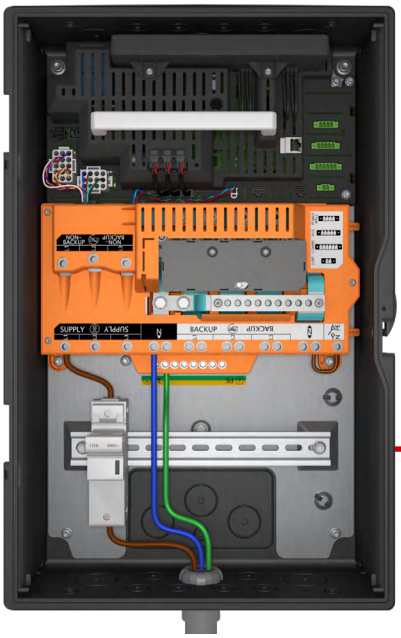
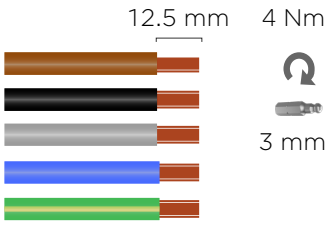


9

	2.5 - 35 mm² (max)
	2.5 - 35 mm² (max)
	2.5 - 35 mm² (max)
	2.5 - 25 mm² (max)
	2.5 - 25 mm² (max)

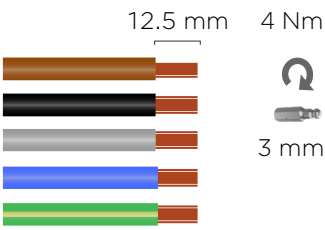
SUPPLY SIDE CONDUCTORS



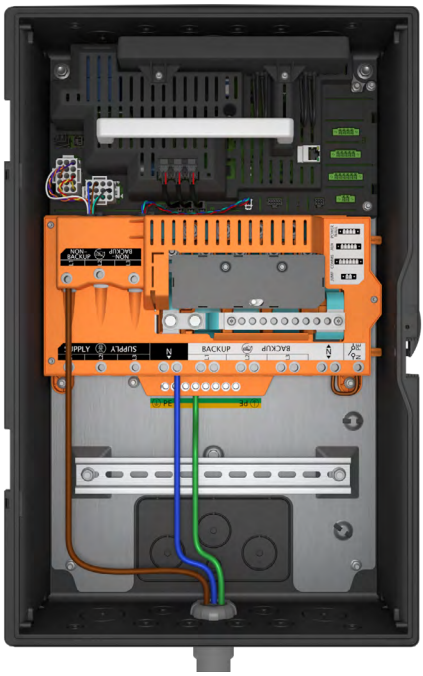


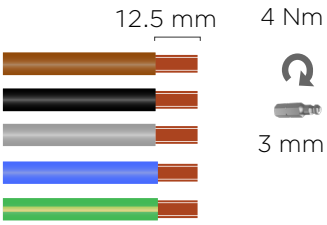
NOTE: Type aM fuse is required. See the *Installation Manual* for additional information about fuse requirements.

BACKUP LOAD PANEL CONDUCTORS



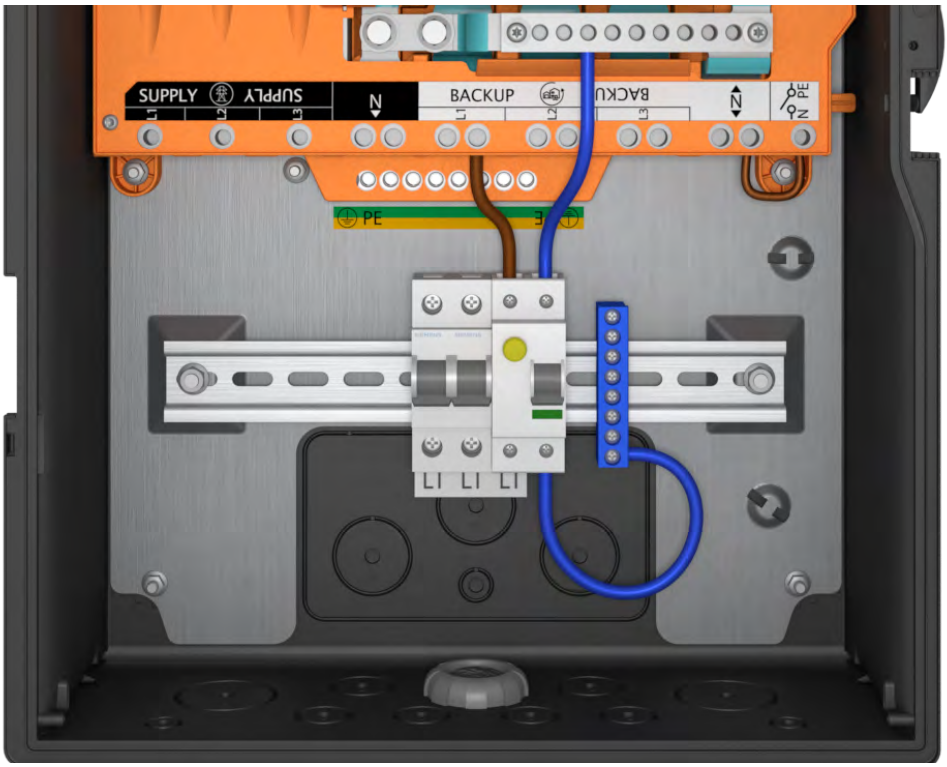
NON-BACKUP
PANEL CONDUCTORS





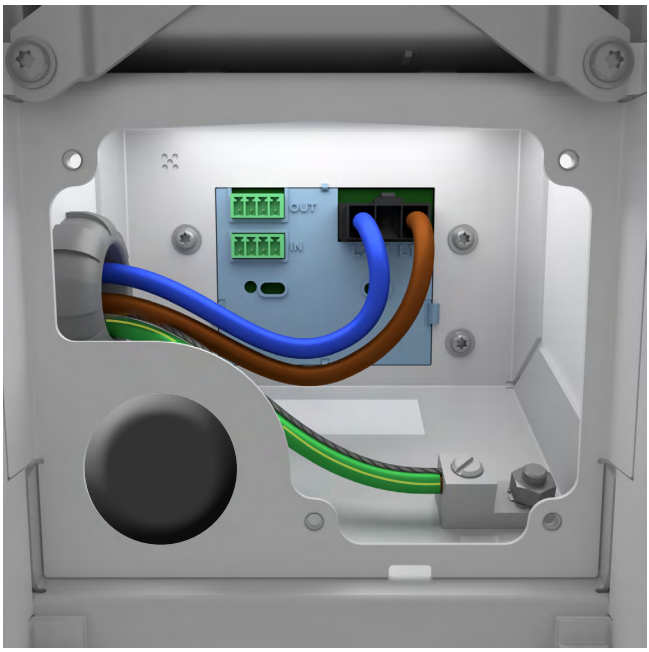
INSTALL GENERATION BREAKERS

10



MAKE POWERWALL AC POWER CONNECTIONS

11

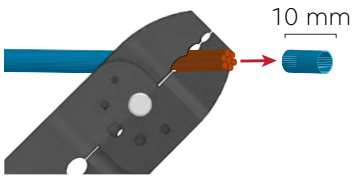


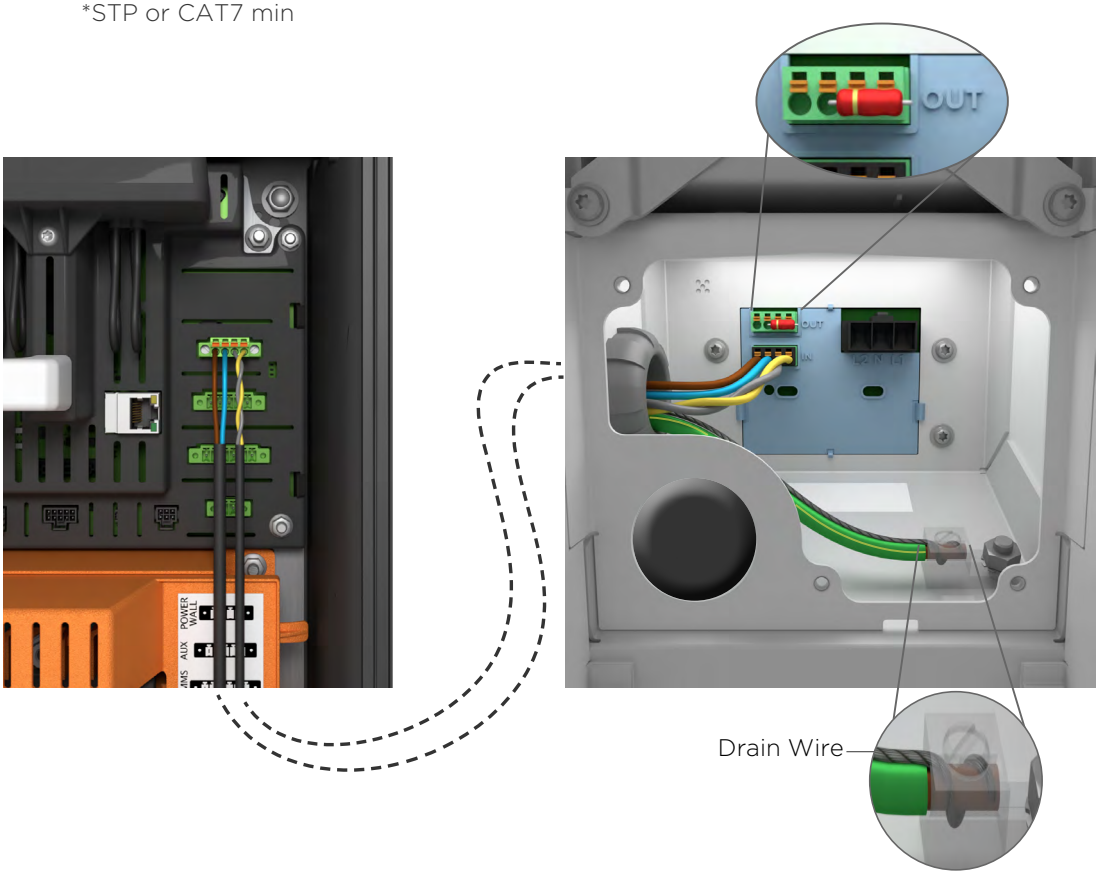
CONNECT COMMUNICATION WIRING

12

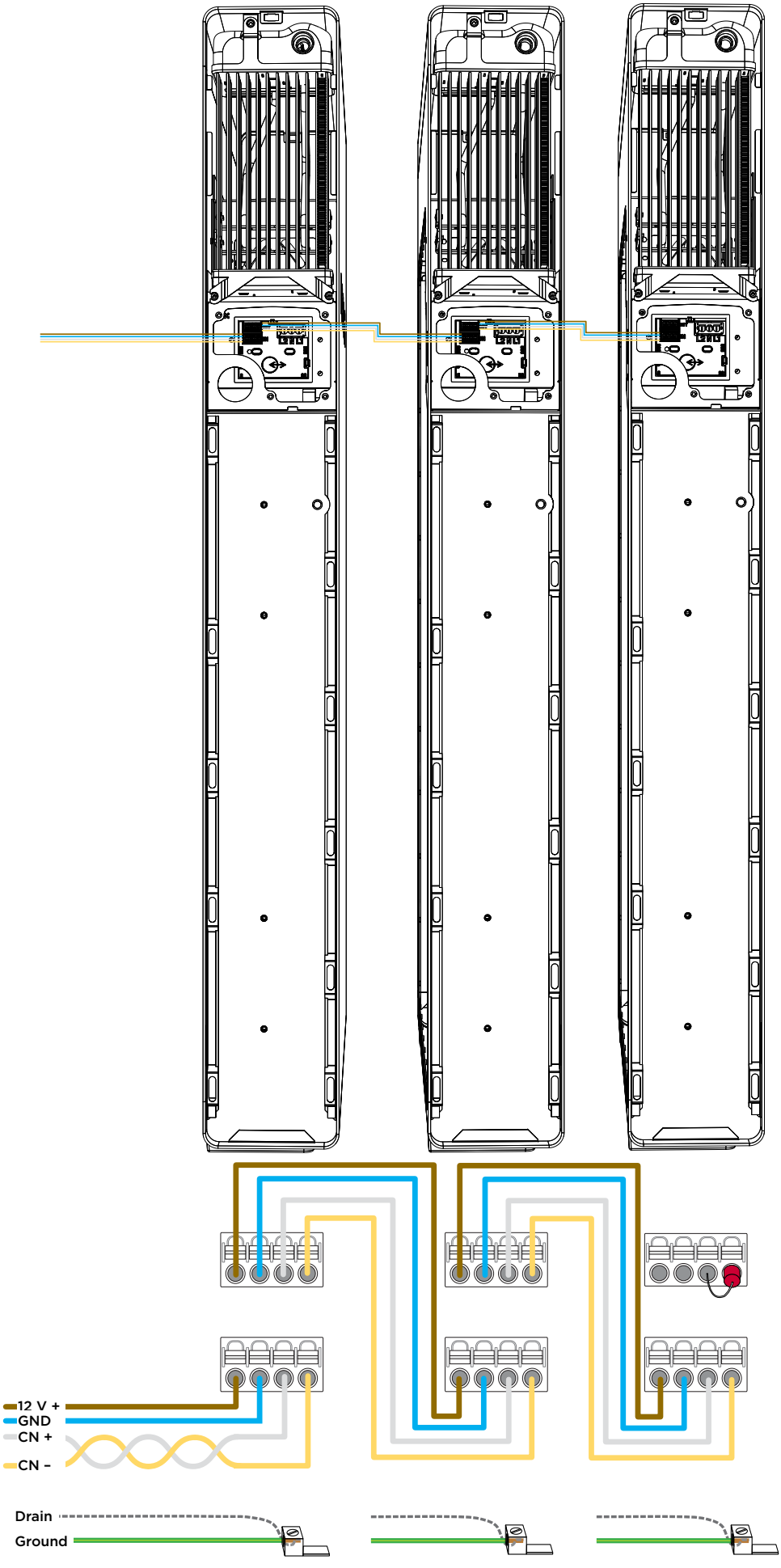
12V +		1.0 - 1.5 mm²
GND (Earth)		1.0 - 1.5 mm²
CN + (CAN HI)*		0.2 - 1.5 mm²
CN - (CAN LO)*		0.2 - 1.5 mm²

*STP or CAT7 min





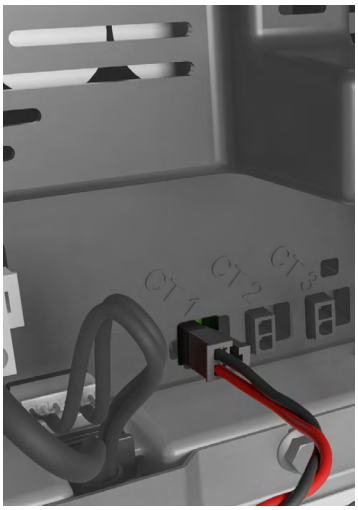
COMMUNICATION WIRING EXAMPLE FOR MULTIPLE POWERWALLS

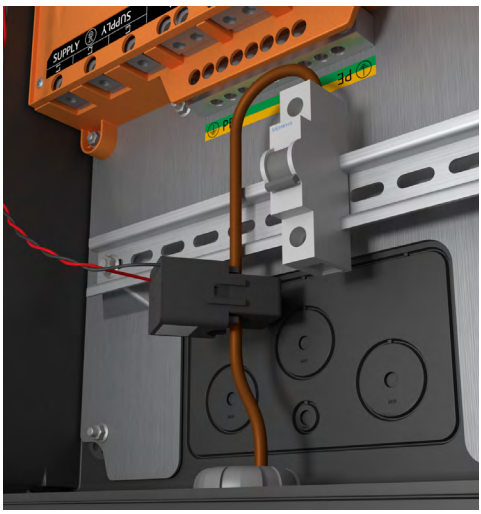


INSTALL METERING

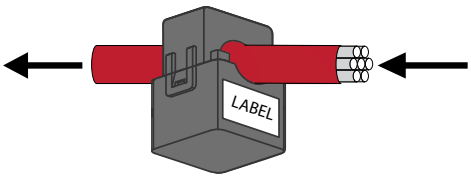
13

SOLAR METERING





CT ORIENTATION



Solar CT → Label toward solar inverter

See the *Installation Manual* for a detailed overview of metering, system wiring diagrams with meter placement, and instructions for installing a remote Neurio meter.

REMOTE SITE METERING

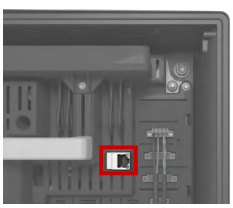
Required for Home or Solar Loads upstream of Gateway

See Powerwall with Backup Gateway 2 Installation Manual for instructions to install a remote meter.

CONNECT BACKUP GATEWAY TO THE INTERNET

14

Ethernet **AND** 2.4 GHz / 5 GHz Wi-Fi



HOMEOWNER NETWORK

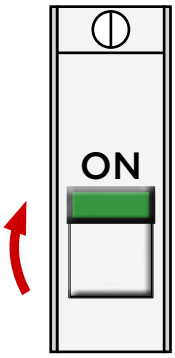
HOMEOWNER PASSWORD

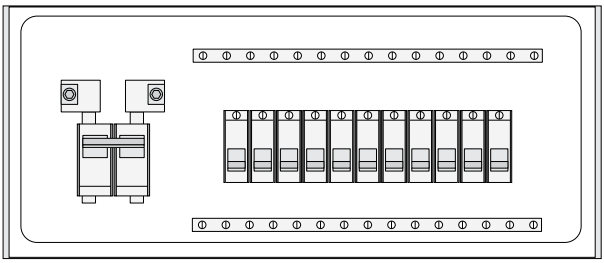
CLOSE WIRING COMPARTMENTS AND POWER ON

15

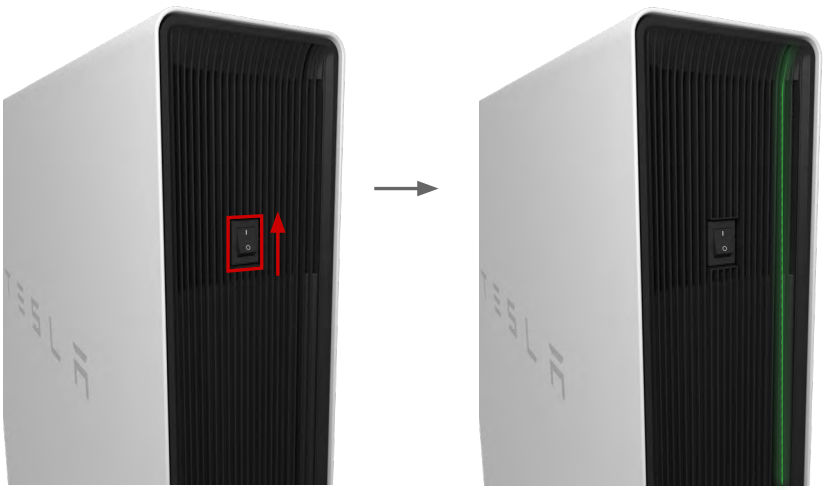
16

17





18



19

20

TIPS	
	Use **Chrome: Incognito** mode or **Safari: Private Browsing** mode.
	Work in one browser tab only.
	For security message Your connection is not private, select **Advanced** and **Proceed**.
	For Error: Bad Credentials, select **FORGOT PASSWORD** to reset password.
	For Error: Login Error (Cannot Start Wizard), select **Click for More** and tick the **Force Launch Wizard** option. Try again.
	If experiencing other issues, refresh the web page.
	If issues persist, reboot Gateway using **RESET** button.

POST-INSTALLATION HEALTH CHECK

BEFORE BEGINNING

1. Wait 20 minutes after commissioning for the system to precondition (noise from pumps and fans may be heard).
2. Ensure the landing page does not show any warnings.
3. Ensure the backup reserve is set below current state of energy.

LOAD AND SOLAR CHECK

1. Compare SOLAR readings on landing page and on inverter display. A difference of >10% is unusual.
2. Switch on load with known power consumption. Confirm LOAD readings on landing page increase accordingly.

BACKUP CHECK

1. Open main breaker upstream from Gateway to DISCONNECT from grid. Transition time to backup during this test should be less than a second (times can vary in other circumstances). Certain sensitive loads might be dropped during the transition.
2. While in backup, switch on at least two different loads to confirm system responds as expected.
3. Close main breaker again to RECONNECT to grid. Transition to grid can take up to 3 min.