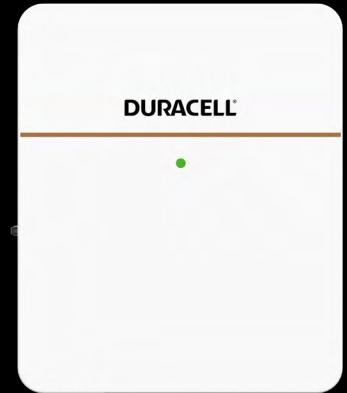


REM Grid Meter Guide for Dura-i G3

DURACELL[®]
ENERGY



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1. Introduction

The 10m cable supplied with our CT clamp should be extended by a maximum additional 15m (25m in total).

Any longer than this risks data corruption due to EM interference.

Thus an REM (Remote Energy Meter) should always be used in the event that the main incoming supply is further than 25m from the location of the Dura-i inverter.

The CT Clamp must be closed on the live cable as it comes out of the grid meter with the indication arrow following the flow of energy direction. See **Section 5 on page 18**.

An AC power source will be required wherever the REM is placed, to power the meter, (whether from the DB or a 240v wall socket).

Dura-i G3 is currently compatible with one meter, the CHINT DDSU666.

This Guide deals with the installation of this.

Please follow the Quick Setup Installation Steps as shown in the following pages.



2. CT Extension

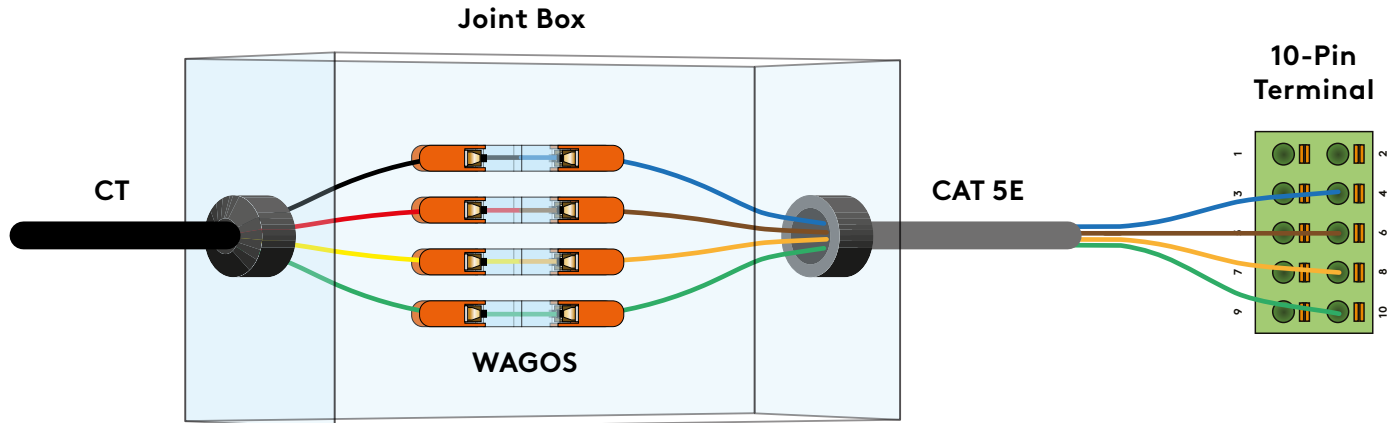


Figure 1. CT extension diagram



NOTE

- WAGO connection only.
- Extendable to a maximum of 15m (25m total).
- Always run data cables min 200mm away from AC cables to minimise interference.

3. Installing the REM CHINT

The meter will come out of the box as per [Figure 2](#).



Figure 2.

Connect the AC power to the meter by using the terminals provided. Ports 1 & 2 as seen in **Figure 3**.



Live

Figure 3.

Neutral

For communication between the meter and inverter you will need to use CAT-5. (Screened is preferred) If not screened then do not run this next to AC Power cables.

Connect the CAT-5 cable. Using only 2 cores - White & Orange in PORT 24 and Orange in PORT 25.

Connect the CT around the main live incoming supply to the house. The CT then connects into ports 9 & 10 on the Energy Meter as in **Figure 4**.

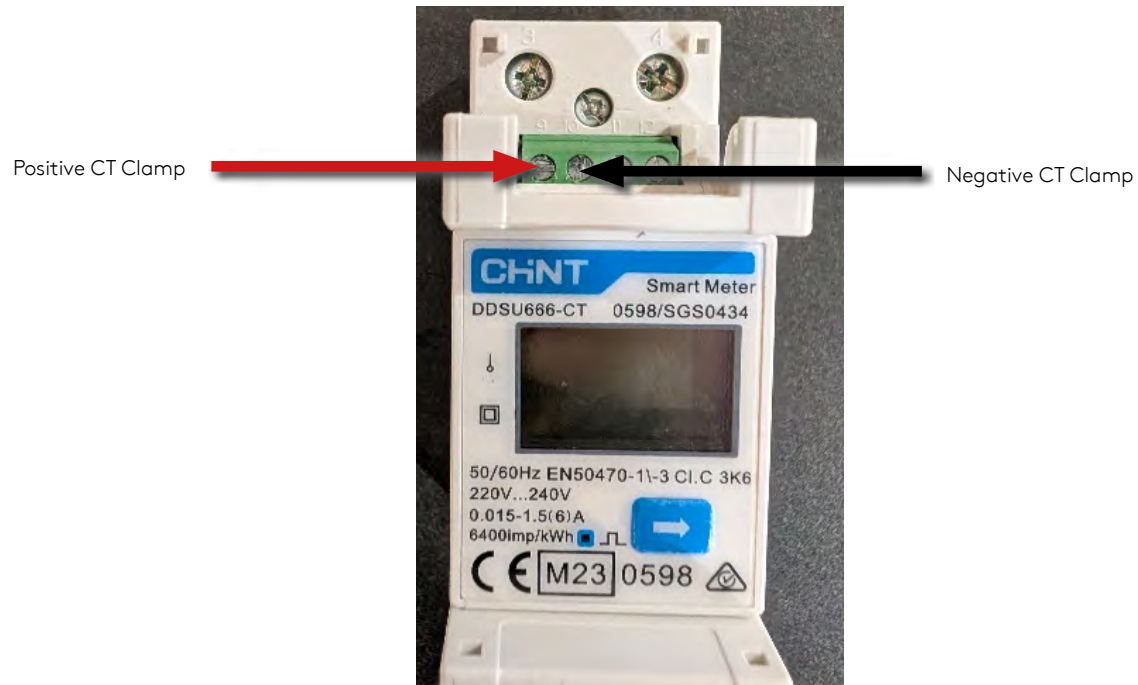


Figure 4.

Using CAT 5 cable, connect port 24 on the meter to port 1 on the RS485 port at the base of the Dura-i and connect port 25 on the meter to port 3 on the RS485 port on the Dura-i G3.

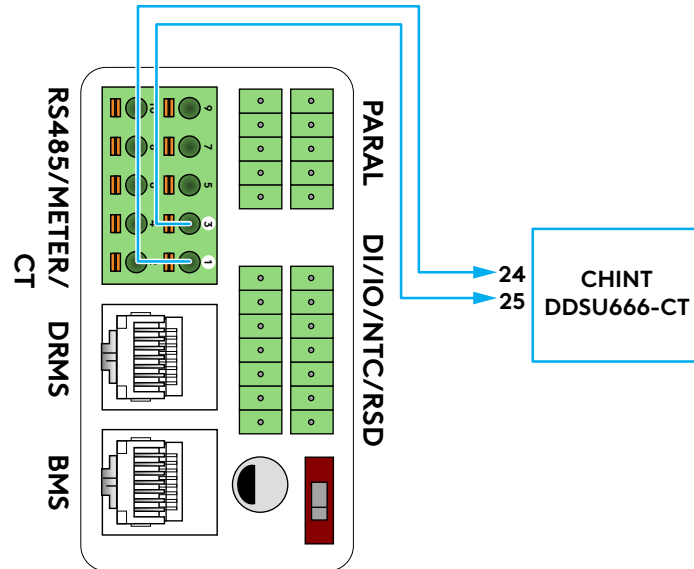
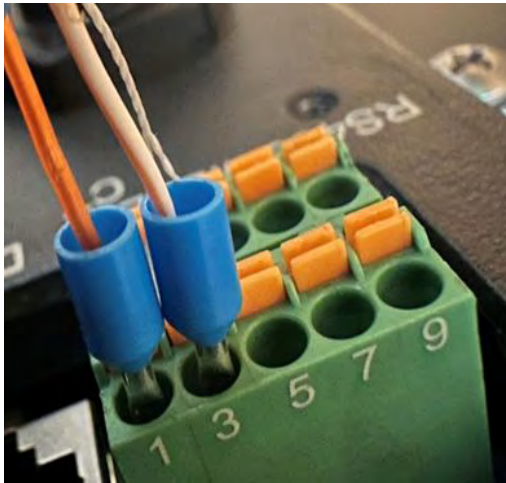


Figure 5.

See [Full Installation Layout - CHINT on page 18](#) for full installation layout.

4. Setup Process

Step 1. Power inverter on

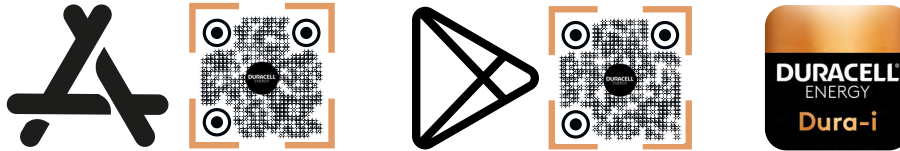
Using the correct startup procedure, power on both the inverters and their connected batteries.

This procedure is: **PV > Battery > AC**

4.1. Commissioning Process

Step 2. Create Use Account

Scan the following QR code to download the Dura-i installers app.



4.2. Log into the Service Account

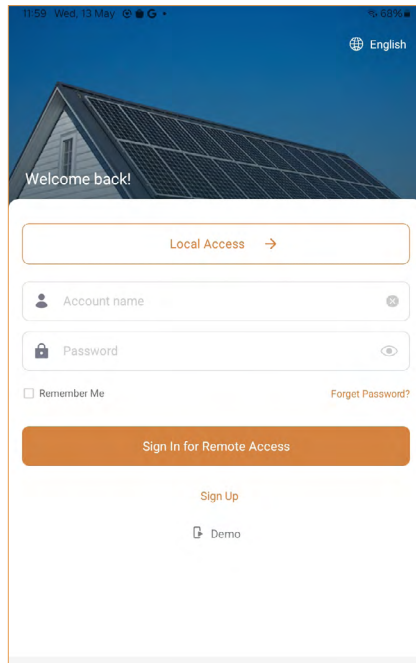


Figure 6.

If you do not have login credentials, contact sales.uk@duracellenergy.co.uk or call **01386 577845**.

4.3. Access Account Management

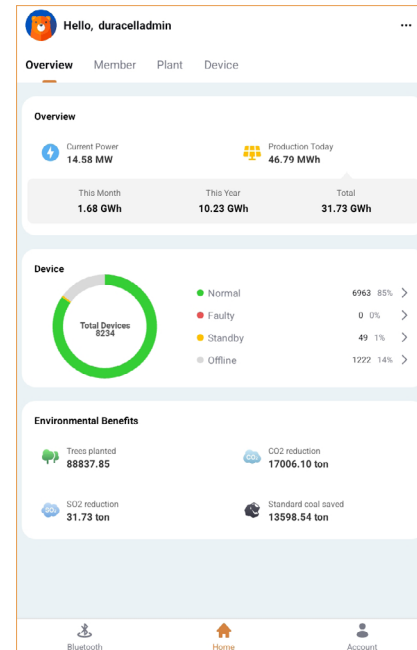


Figure 7.

This section shows all your previous plants and installations

4.4. Start New Commissioning

1. Click on the ... 'meatballs' in the top right.



Figure 8.

4.5. Create Plant & Add the Inverter

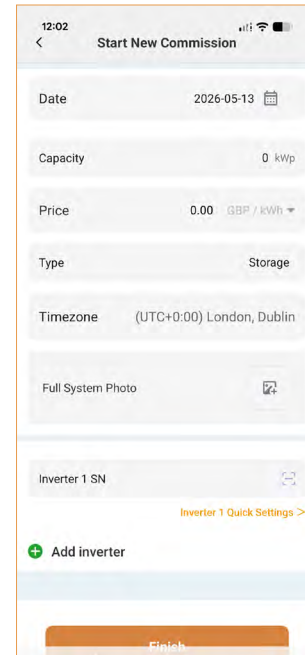


Figure 9.

1. Fill in the plant-specific details. Include a system photo. For parallel installations, select the correct number of inverters and scan/input all of their serial numbers.
The first inverter serial number entered will act as the primary.

2. Scan or input the inverter serial number.

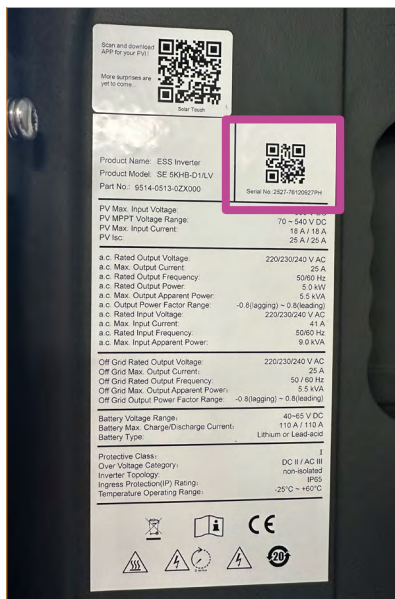
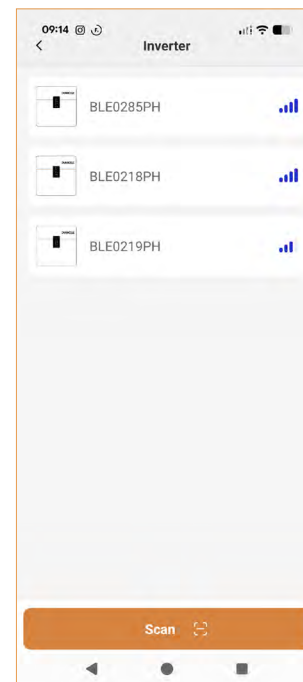


Figure 10.

4.6. Enable Bluetooth & Select the Inverter

3. Turn on Bluetooth on your mobile device and select the inverter serial number you will be commissioning.



Step 1. Configure the internet connection

First please read the tips on the screen carefully. Then choose the Wi-fi SSID and enter the Wi-fi password. Click the **Ok** button and wait for “Wi-fi router loading successfully”.

If the configuration was successful, the indicator light on the Wi-fi /LAN module will change colour from Orange to Flashing Blue and then to Green.

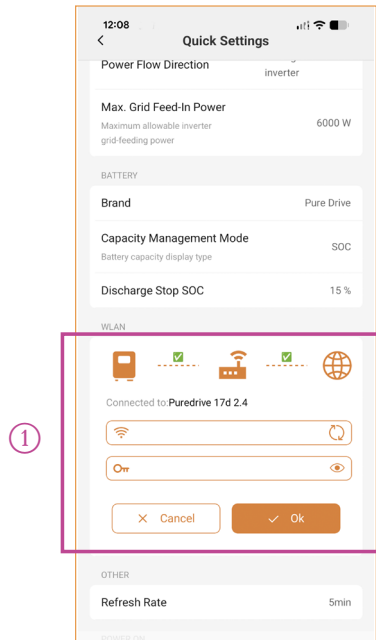


Figure 11.

Step 2. Grid Standard and Date & Time Parameters

To configure Date & Time, click on the displayed date and time and then “Calibrate with phone”.

The grid standard will be pre-set for the inverter export limitation, however if the customer wishes to change it you can manually do this in page 2.



NOTE You must seek approval from the local DNO before changing export limits.

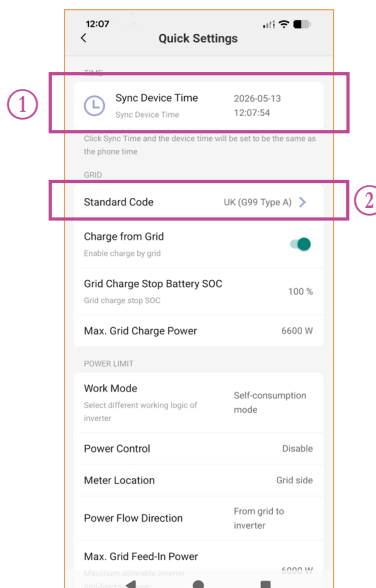


Figure 12.

Step 3. Power control parameters

In this step you will set how the inverter reads grid and house load.

1. For "Power control" select Digital Power Meter.
2. For "Meter location" select the location you have chosen in **5.2. Standard Install with REM on page 18 of the Dura-i G3 Standard Install Guide**. For standard installation it is recommended to install the meter CT on the incoming grid live cable before the main house distribution board as shown in **6.6.2. CT + Meter Connection on page 45 of the Dura-i G3 Standard Install Guide**.
3. For "meter type" select the CHINT as shown in **Figure 13**, below.
4. For "Power flow direction" select the direction in which the arrow on the CT sensor is pointing. For standard installation it is recommended to install the CT pointing from the grid to inverter as show in **6.6.2. CT + Meter Connection on page 45 of the Dura-i G3 Standard Install Guide**.
5. For "Maximum feed in grid power", this should be set to the size limitation of the inverter OR the maximum allowed by the DNO as grid standard, whichever is lower.

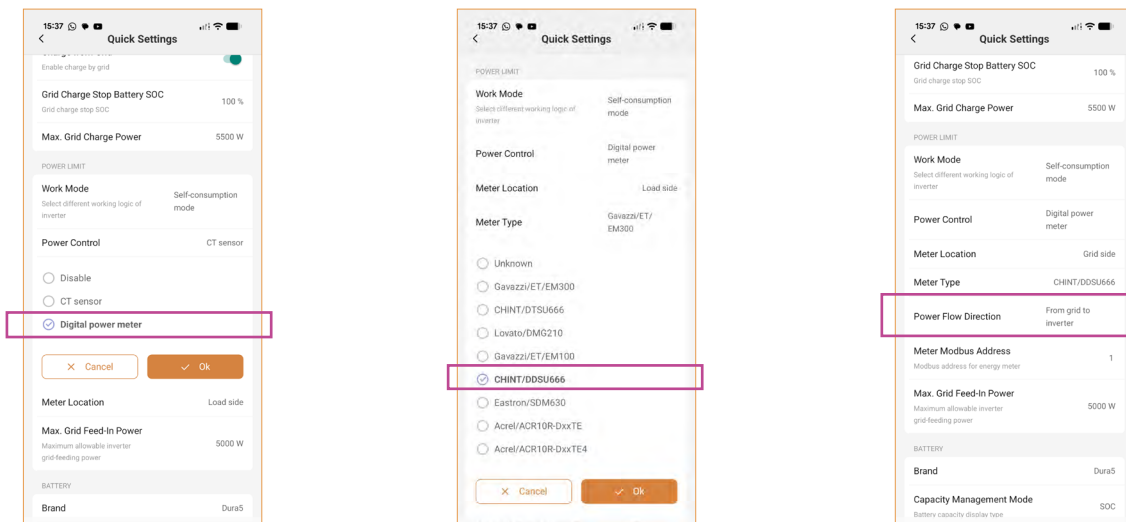


Figure 13.

Step 4. Battery type parameters

In this step you will set the Work Mode and Battery Type.

1. For “Hybrid work mode” choose the work mode best suited to the customers’ needs.
See [7.1. Inverter Working Mode on page 55 of the Dura-i G3 Standard Install Guide](#). The most commonly used setting is “Self-consumption mode”. This allows the inverter to prioritise the house load before charging the batteries or exporting generated PV energy to the grid.
2. For “Battery brand selection”, choose the type of battery that is connected to the inverter. If Dura5 and Duracell5+ batteries are not available for selection, please contact customer services.
3. For “Backup output”, check whether the customer has a critical loads sub-board which they require power to in case of a power outage. See [5.2. Standard Install with REM on page 18 of the Dura-i G3 Standard Install Guide](#) for how to wire in backup circuits. If the customer does have backup circuits, turn this on. Turn this off if customer does not wish to use the backup feature.

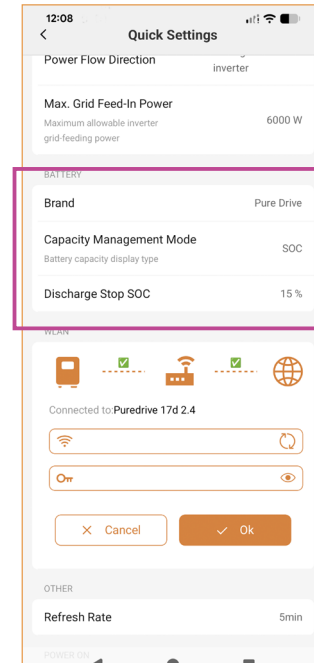


Figure 14.

Step 5. Turn on inverter

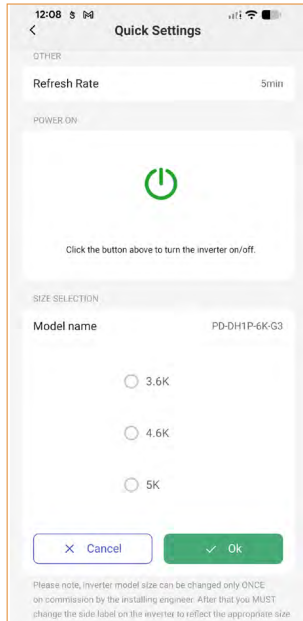


Figure 15.

In this step, please click the power button to turn on the inverter. Green turns to red once enabled.



NOTE

DO NOT COMPLETE THIS STEP IF YOU ARE INSTALLING PARALLEL INVERTERS. Now switch to the Parallel Setup Guide.

If you need to change the size of the inverter, select the relevant size and press **Ok**.



NOTE

Inverter model size can be changed only ONCE on commission by the installing engineer. After that you MUST change the side label on the inverter to reflect the appropriate size of KW.



NOTE

You must seek approval from the local DNO before changing export limits.

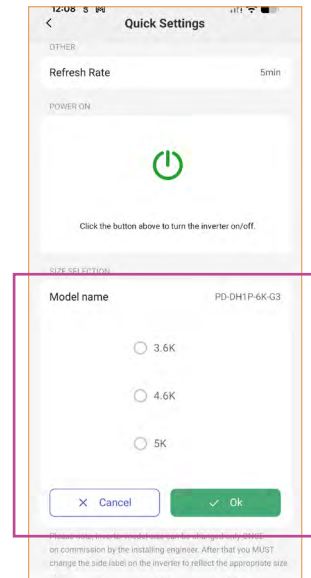


Figure 16.

5. Full Installation Layout - CHINT

Dura-i REM CHINT

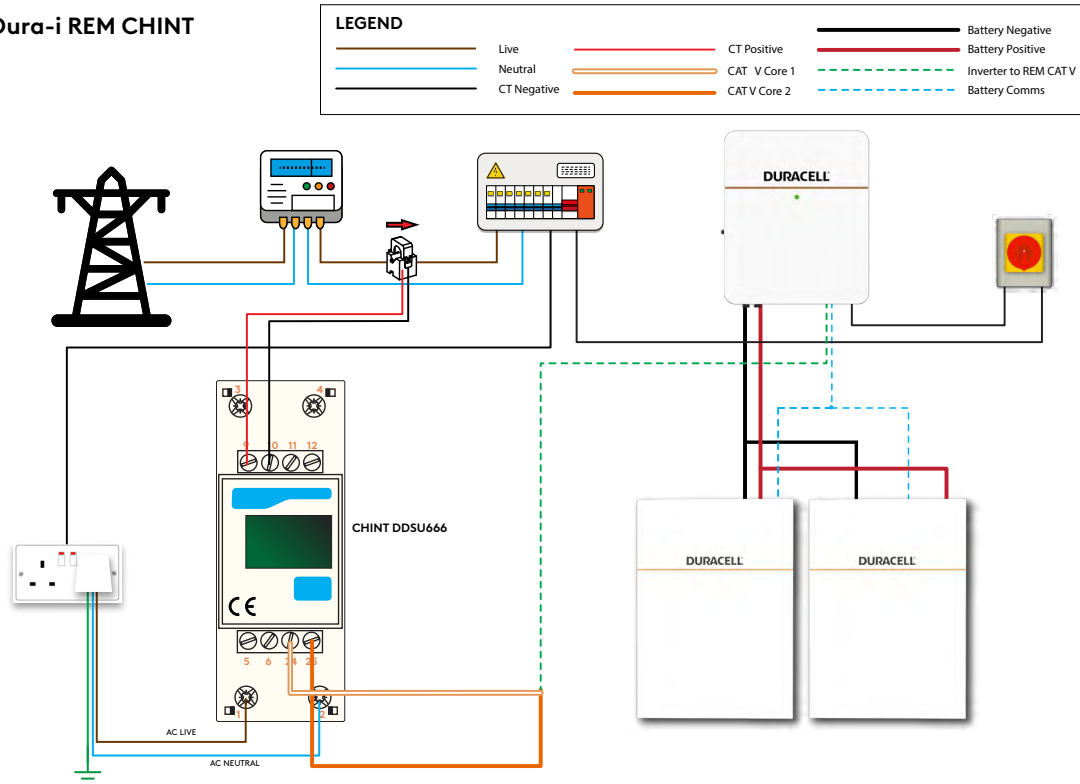


Figure 17.

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