



Technical Data



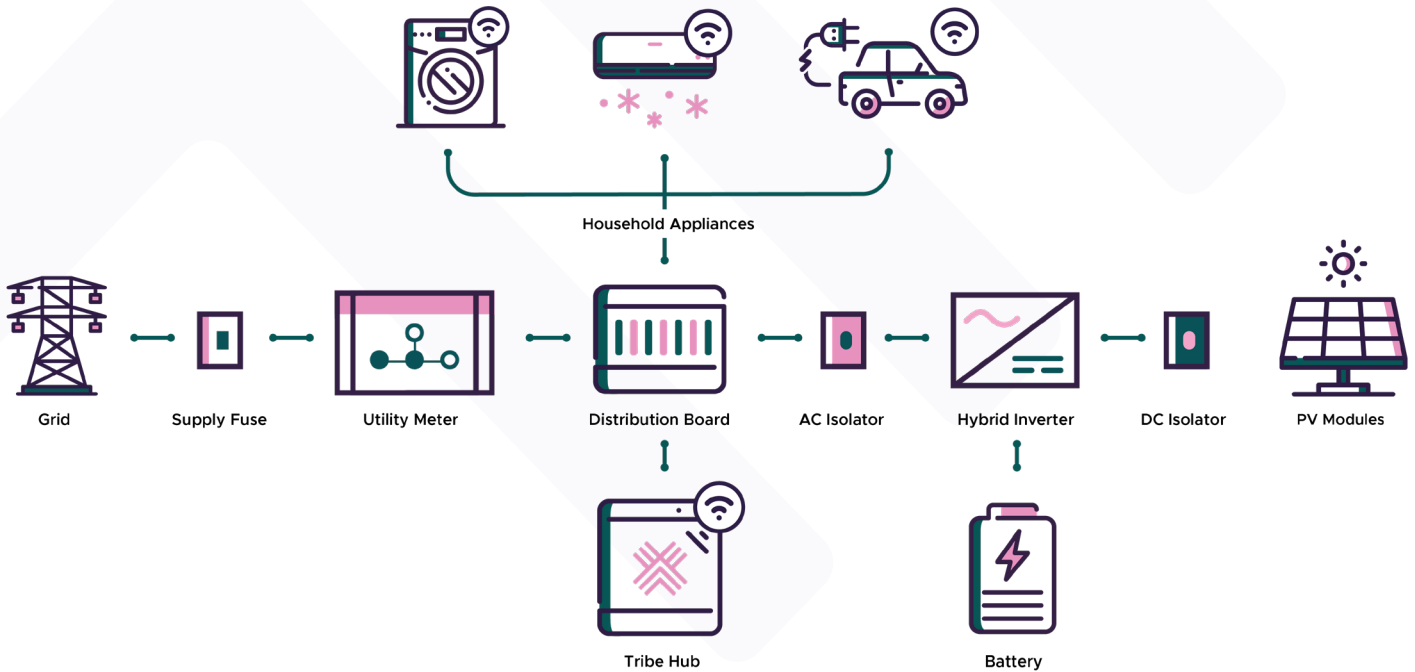


Smart energy management for the modern home

Tribe enables customers to monitor, control and optimise a wide range of devices and appliances within the home to maximise self-consumption of solar energy and take advantage of low-cost electricity from the grid



Connecting & Optimising the Smart Home





Tribe Hub

- > The core of the system with integrated artificial intelligence to learn energy profiles and forecast future generation and consumption patterns.
- > Combines consumption and generation forecasts with price signals and weather data to select when loads should be switched on or off to maximise self-consumption and autonomy from the grid.



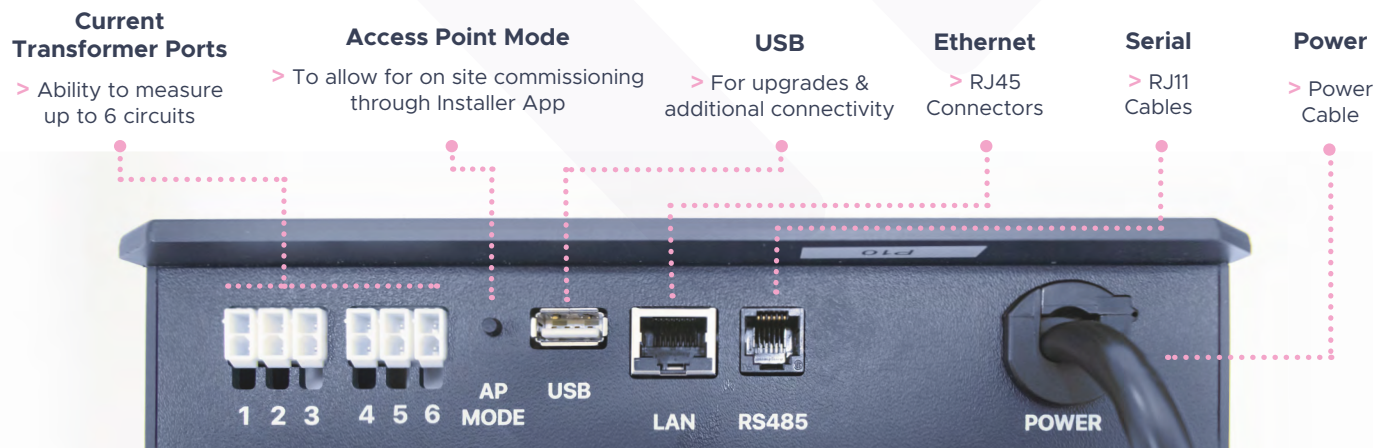
Hub Specifications

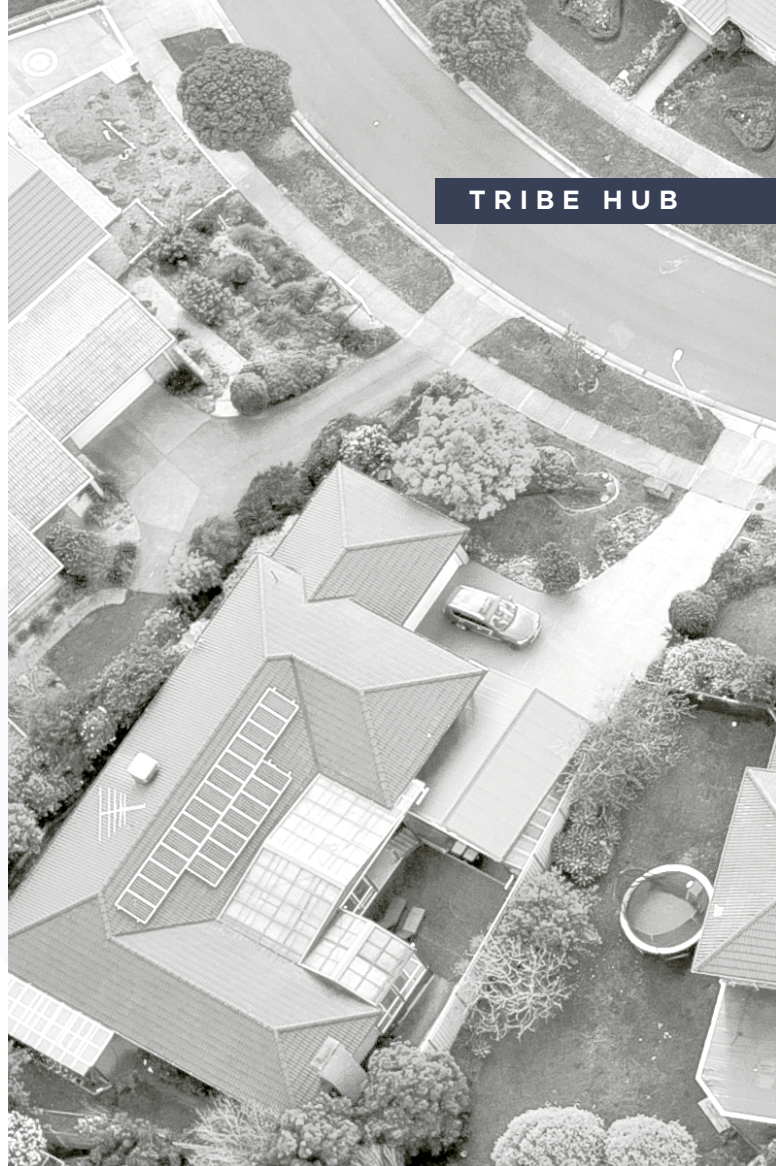
Description	<ul style="list-style-type: none"> > Pilot Sample > Single plastic (HIPS) enclosure with wall-mounting plate
Dimensions	<ul style="list-style-type: none"> > Height: 266mm > Width: 210mm > Depth: 42mm
Weight	2.1kg
Ingress Protection	IP20 (indoor installation only)
Installation Location	Wall-mounted within 2.5m of the property's distribution board
Wiring Constraints	CT clamps extend to 3m (1m + 2m extension) [Extensions included]

Electric Specifications

Operating Voltage	<ul style="list-style-type: none"> > 200 – 285V AC (Single Phase) > 45 – 65Hz
Maximum Power Consumption	25W
Parameters Measured	<ul style="list-style-type: none"> > Current > Voltage > Frequency > Active Power & Energy > Reactive Power & Energy
Measured Range	<ul style="list-style-type: none"> > Voltage (0 - 285V AC phase-to-neutral) > Frequency (45 - 65Hz) > Current (up to 63A)
Input-Voltage Characteristics	1.2Un
Measurement Accuracy	<1% of reading measurement error

Communications & Connections Overview





Computing Capabilities

Meters	2 x revenue-grade meters
Processor	1.2GHz
Data Storage	16GB
Software	ubiworx™ IoT/IoE platform

Communications

Wi-Fi	802.11b/g/n 2.4Ghz
Cellular	4G/LTE (E.U. & Australian bands)
USB	1 x USB2.0 host, type-A connectors
Serial	1 x RS485 port, RJ11 connector
Ethernet	1 x LAN port, RJ45 connector, 10/100Mbps
AP Mode	1 x activation button
CT Ports	6 x 2 wire locking connector

Current Transformers (CTs)

CTs	6 x 63A split CTs with 1m cable
CT Extension Cables	6 x 2m CT extension cables
Cable Aperture	10mm

Environmental Specifications

Location	IP20; indoor-only installation
Operating Temperature Range	0°C – 60°C
Storage Temperature Range	-20°C – 80°C

Country Technical Support

Live Markets	<ul style="list-style-type: none"> > Australia > Spain > United Kingdom
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Installation

Location	Indoors; wall-mounted within 2.5m wiring distance of the property's distribution board
Online Commissioning	Tribe Installer App
Technical Support	First-line support during business hours

Compatibility for Monitoring & Control

Hybrid Solar Inverters	<ul style="list-style-type: none"> > Sungrow (Models: SH3K6; SH4K6; SH5K) > GoodWe (Model: EM Series) > SolarX (Models: X1; X3)
EV Charge Points	<ul style="list-style-type: none"> > OCPP 1.6-compatible
Appliances	<ul style="list-style-type: none"> > Air-conditioning controls via infrared remote
Smart Plugs	<ul style="list-style-type: none"> > TP-Link Wi-Fi plugs

Tribe App

Intuitive user interface providing real-time monitoring and control of generation and consumption at device-level.

Compatibility

Operating System > Compatible with iOS & Android devices

Optimisation

Artificial Intelligence Integrated AI and machine-learning algorithms to automatically optimise home generation and consumption of electricity against:

- > Smart tariffs (forward-compatible)
- > Weather forecasts
- > Carbon intensity forecasts
- > Predicted house consumption profiles

Auto-optimisation can be overridden, if required; controls and schedules can be managed manually.

User Interface

Flow Live status of energy generation and consumption within the property

Consumption of up to 3 key assets displayed:

- > Home battery system
- > Electrical vehicle charge point
- > Air-conditioning unit

Graphs Live graphs showing daily:

- > House power (import & export)
- > House generation & consumption
- > Battery State of Charge



Smart Grid

Virtual Power Plant Forward-compatible with VPP-type business models and DSR revenue streams:

- > Firm Frequency Response
- > Peak shaving and constraint management
- > Reactive Power control
- > Blockchain settlement

Summary Dashboard displaying daily / weekly / annual:

- > Energy \$ savings
- > % self-consumption of solar generation
- > % autonomy from the grid
- > Total consumption, generation, import & export

Loads > Monitoring, control and scheduling of up to six devices within the property

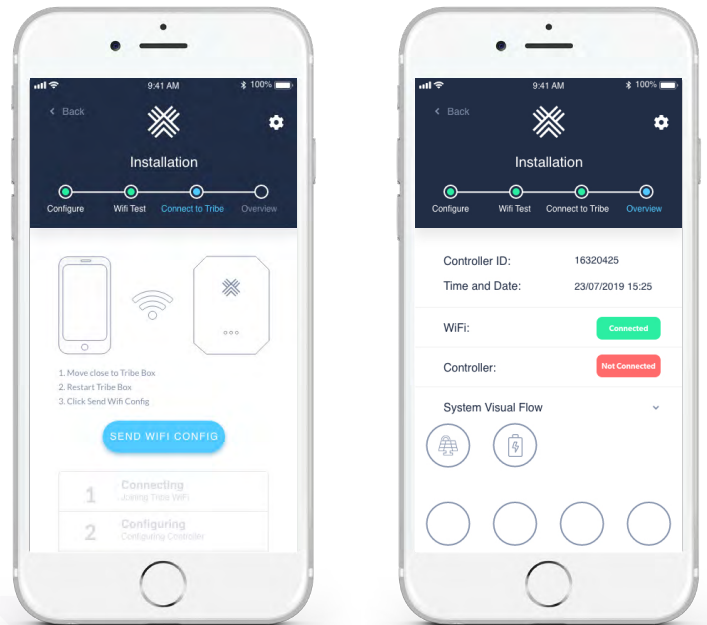
- > Summary of daily consumption at device-level

Profile > User profile information

- > Notifications
- > Technical support
- > Smart tariff selection

Tribe Installer App

- > Designed to minimise the time required to commission the Tribe Hub and complete the installation process
- > Full configuration of solar PV, battery, EV charge point and other key loads
- > Live overview of installed portfolio of Tribe systems with diagnostics and technical support



Compatibility

Operating System > Compatible with iOS & Android devices

User Interface

Internet Connection Connect to the property's internet supply either via Wi-Fi or Ethernet

CT Allocations Clamp up to 6 key loads in the home for power monitoring

Device Set-up Connect to a wide range of devices in the property for control and scheduling:

- > Hybrid solar inverter
- > EV charge point
- > Air conditioning unit
- > Smart appliance(s)

Commission Submit installation details and unlock access to the Tribe App

Portfolio View Monitor portfolio of installations

Diagnostics & Support Product status information and access to product troubleshooting documents and front-line Technical Support

