

CurrentServer - 2020



User Guide

Specification

Realtime measurement of 400A 3 phase supply;

Logged & Live view:

Volts (L1,L2,L3-N) 230/400V

Amps (L1,L2,L3, Σ ,Neutral) 400A (6A CT)

Frequency 50 or 60Hz

Front panel only:

kW&kvar&kVA&PF (L1,L2,L3, Σ)

kWh,kvarh (+, -, Σ)

kW&kvar Demand (+, -, Σ)

Tariff kWh& kvarh (T1,T2,T3,T4, Σ)

Accuracy class B according to EN50470-3

Accuracy class 1 according to IEC62053-21

Ambient temperature rating - 4° - 70°

Internal fusing - 5A/phase. 5X20MM, CERAMIC, QUICK BLOW, 5A

Front panel LCD display

Internal web-server, displaying live and logged data on any device capable of connecting to the network with a web browser.

Local display (1920x1080) - Live and graphical data representations, 5mins - 7days resolution.

Inbuilt MQTT server, logs data from *CurrentNode* devices on the same network, and displays their data live using the above methods.

Connections

16A CEE Inlet - 3P+N+E

Weipu SP13 2 Pole x3 for Current tap connections

HDMI

Ethercon

USB2 (A) x 2

Safety

Do not expose the device to water, or excessive moisture.

Do not apply more than 5V DC to the CT connections.

Do not operate the device outside of its temperature zone.

Do not open, or attempt service, the product contains hazardous live parts.

Battery warning: Lithium Ion

The product contains Lithium Ion cells, charging these below 4°C can cause permanent damage. Observe local shipping regulations for products containing internal lithium ion batteries.

Quick Start

Connect the CurrentServer device to a local network using the Ethercon port.

Connect a HDMI display to the port.

Connect the current taps to ports CT1 CT2 CT3

Connect power to the device using the included 3 phase adaptor cable, or a 3 phase supply to the ceeform inlet.

A short press on the red power key on the front panel will boot up the unit.

When the device has fully booted and the live display is shown, use the blue key to toggle between live and logging views.

A mouse may be connected to the front panel to select other nodes in the live node list for live view.

Remote connection

The device has a statically configured IP address, displayed on the front LCD panel.

The device has Bonjour enabled, with the host name displayed under the IP address.

The factory default address is 192.168.1.99

Navigate to either the IP address on screen, or CurrentServer01.local from a web browser.

Local setup

Using a keyboard and mouse connected to the device, settings can be changed.

From the live view, enter the menu (top left) and choose 'System'

IP Setup

The device must operate on a static IP address system, in order for the other nodes in the network to reliably communicate with it. If you change the IP address of the server, all remote nodes will need to be informed of the change, using the config tool available at the Manual page on the Electric Foundry webpage.

Input a new static IP address in the form XXX.XXX.XXX.XXX and press tab or enter .
Input a new static router address in the form XXX.XXX.XXX.XXX and press tab or enter.
Press 'SAVE'.
Press 'RESTART'

DHCP

The DHCP button can be used to allow the device to be assigned by an external DHCP server, this is not recommended except when the device is connected to the internet for a remote software update.

Database Disk usage

The internal database has a retention policy of 7 days, after 7 days data will be overwritten starting with the oldest values, aggregate data is kept. It is therefore unnecessary to delete any data.

Using the CLEAR DATABASE button, the database can be reset to 0 readings, please note that the disk usage indicator may not change until the device is restarted.

Backup

Using the CLONE TO EXTERNAL DISK button, the database can be backed up.

Insert a FAT32 memory stick in the front panel USB socket, minimum size 16gB.
Press the CLONE button. The database will be backed up to the USB stick.

Press RESTORE to restore from a USB stick.

Remote setup

The device can be configured by using CurrentServer01.local from your web-browser on the same network in the same IP range.

Remote Nodes

Remote nodes should be connected to the same network, in the same IP range. Refer to the configuration tool instruction manual for details.

