Smart PDU Platform to Decarbonize Data Centers

DATASHEET

Our Vision

Ethernetics is a conscious, digital, **sustainable technology company** with a clear mission:

decarbonize data centers and offer a piece of the puzzle in making the internet greener.

With the exponential growth of internet, data centers and cloud computing companies have the challenge to reduce energy usage (and carbon emissions).

Our Mission

Reduce energy consumption for high-volume energy users (such as Data Centers) by applying it's AI-driven Smart Power Distribution Unit (PDU).

The benefits to the customer are:

- short term: cost reduction, efficiency, predictive maintenance

- long term: CO2 reduction attestation & accounting, decarbonization

FEATURES

- vertical 0U
- rack-mountable
- attached inlet cord
- up to 36 outlets
- 110 - 230 VAC
- Oscilloscope-based, real-time, high-resolution true RMS measurements
  . Voltage (V)
  . Power (W, VA)
  . Current (A)
  . Power Factor (%)
  . Frequency (Hz)
  . Energy (kVAh, kWh)
  . Harmonic Distortion (%)
  . Load Imbalance (%)
- modular
  . 4-outlet C13 modules
  . 3-outlet C19 modules
- hot-swappable
- individual outlet switching
- outlet-level phase change-over hot switching
- physical and electronic overcurrent protection
- OTA upgradable
- USB type-C sockets for connecting environmental sensors
- Low energy consumption (15W typ. - 30W max)

BENEFITS

- Lowest carbon footprint: the modular approach to functionality allows for less material waste and maximum circularity. All electronics and code are architected for keeping it clean & green.
- Return on investment < 5 years: As an industry's first, our PDU Platform offers the ability to reduce energy consumption from inside the rack and get immediate return on your investment.
- Energy savings as a Service: Smart algorithms drive the platform to automate power consumption reductions inside the rack, without disrupting your server activity.
- At your service: With a secure outbound cloud connection we provide ubiquitous dashboards and data access, event logging & snapshots of occurrences, and back up settings. Firmware updates and upgrades are pushed to your installation from our servers, at your discretion.
- Staying ahead: as soon as we learn something new, we want to share! Our services are constantly being improved and expanded; new functionality based upon your data can be added on demand.
- Staying alive: Our patented built-in oscilloscope and spectrum analyser is our stethoscope to pick up signs of wear or upcoming trouble: your servers, their environment, even itself. The platform shows you when it's getting time for a replacement of an aging module or failing servers.

ETHERNETICS
DECARBONISE DATA CENTERS

Steenweg 56,
9570 Lierde
BELGIUM
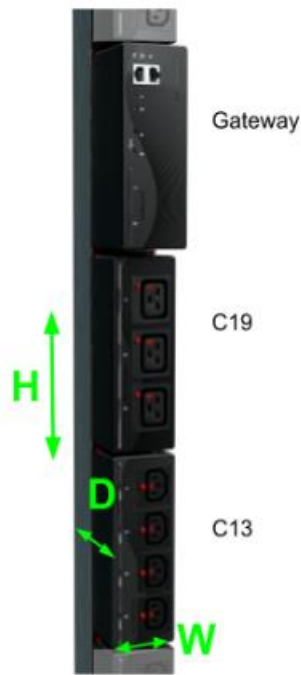
TECHNICAL SPECIFICATIONS

I/O
- 2x 10/100 Ethernet LAN
- 2x USB type-C, 3.0 speed
- RGB LEDs for power feed indication and status
- Inlet: 3 m H07RN-F cable with IEC60309 plug, 3x230Vx32A
- Outlets: RGB status LED, self-locking sockets - no special power cables required

Power Efficiency
- zero-crossing switching
- energy-efficient circuitry, processors and code
- bi-stable relays for zero consumption while not toggling
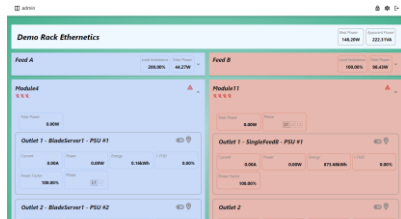
Security & alarms
- Secure web UI (HTTPS)
- Zabbix-compatible
- Secure private connection to Ethernetics cloud space for dashboards, email/SMS alerts, settings and log data backup

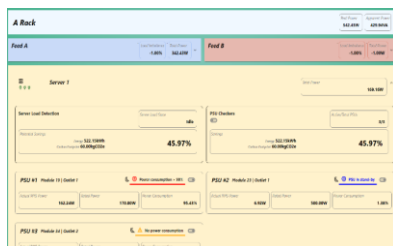Gateway

C19

H

D

C13

W

MODULARITY
- GatewayPSU (top)
  - 1 required per backbone.
  - PSU for the whole PDU
  - 2x RGB LED for power feed indication & status
  - 2x USB-C for environmental sensors
  - Zabbix™-compatible connection to Ethernetics cloud space for dashboards, measurement storage, settings and log data backup
  - API-level access
- 3xC19 (middle) & 4xC13 (bottom) outlet module
  - cable-locking IEC C19 outlet, no special cable required.
  - power rating:
    - C19: 16A/socket output, input: 16A per individual phase
    - C13: output: 10A/socket, input: 16A max, one phase at a time
  - 100.000 samples/second/outlet
  - Accuracy +/- 1%
  - built-in change-over switches to transfer outlet power between phases
  - thermal & electronic fuses built-in

WEB UI

rack view

- direct, low-level rack control
- one webUI for both PDUs in the rack
- real-time view of measurement data

asset view

- server-centric management of your rack
- insight in the health and behaviour of servers
- control and automate power consumption reduction services

MECHANICAL
- Form-factor: vertical rackmount 0U
- Dimensions (HxWxD, in mm) Backbone: 1961(1974*) x 66,7 x 50(62*)
  with inserted Gateway module: 1961(1974*) x 66,7 x 104
  with inserted Outlet module: 1961(1974*) x 66,7 x 126,5
  * including inlet cable gland
- Chassis: brushed aluminium extrusion profile
- Module housings: recycled and recyclable plastics
- Feed color coding: indicated by the RGB LED on the Gateway
- CE/RoHS compliant

For more information
Want to find out how we can help decarbonize your Data Center?

www.ethernetics.tech
info@ethernetics.tech

ETHERNETICS
DECARBONISE DATA CENTERS

Steenweg 56,
9570 Lierde
BELGIUM