ZELLA Fort

Rugged Micro Data Centre

Technical Specifications

ZELLA DC

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Zella Fort Rugged Micro Data Centre - benefits and features

A rugged hand-held micro data centre for use in external environments.

The Zella Fort was developed in 2019 to assist battle groups of up to 100 soldiers during deployments to remote locations around the world. During times of conflict, soldiers use handheld fingerprint detection devices out in the field to detect potential IED makers. Latency issues have historically resulted in delays with critical information reaching devices in time.

To further compound the issue, the modern soldier generates far more data than ever before with smart guns, uniforms, helmet camera & videos along with data from vehicles, drones, helicopters and tanks.

Sending the data back to a centralized data centre is no longer practical. The Zella Fort enables local and secure data processing at the Edge.

Fast and easy deployment and relocation, all you need is a generator.

Highly energy efficient with a low PUE (power usage effectiveness).

Very **small footprint,** similar in size to a fridge or a vending machine.

Your data and assets are fully enclosed by a robust **metal enclosure.**

Programmed with **alerts & automations** to protect your uptime.

IP65 rated: water proof and dust proof to protect your IT infrastructure.

Reach your servers easily thanks to **360 degrees access with removable panels.**

The **secure door** will allow you to have complete control over who has access to your data.

Reduce your carbon emissions by lowering your energy consumption.

Save money by lowering your power bills and simplifying maintenance and installation.

Zella Fort is **light** enough to be carried by four soldiers.

Fully **insulated** to keep your servers at a stable temperature.

Keep your data and infrastructure **safe and secure** from physical and cyber threats.

Manage and monitor your data and infrastructure remotely to protect your uptime.

Internal LED bar lights allow you to easily view your IT equipment and servers.

Cable management to facilitate installation and maintenance and for health & safety.

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Dimensions and Weights

ZELLA Fort

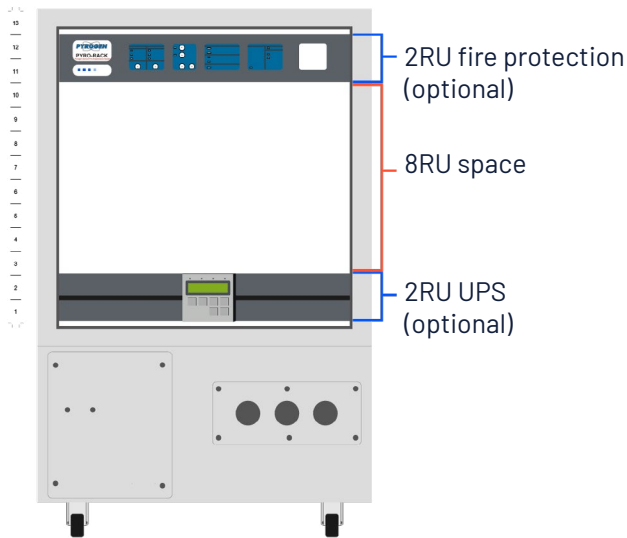|	Fort
Standard dimensions (L x W x H) mm	Closed tray: L1100 x W785 x H1000
	Open tray: L1100 x W1200 x H1000
Base weight (approx.)	120kg
Client available space (2RU internal switchboard)	2RU

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Your IT spacing guide

Each Zella Fort includes a 0RU switchboard and a 0RU PDU. You also have the option to add a UPS, a battery and a fire protection system. You can use the remaining racks to add any other rack-mounted equipment you may need such as servers, comms equipment, additional batteries, etc.

2RU fire protection (optional)

8RU space

2RU UPS (optional)

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Intelligent PDU

PDU features

Energy metering with bill grade accuracy (+/- 1%)

Metering per input line & output receptacle

Remote outlet switching

Networking

Metering per branch circuit breaker

On board display

Overload protection

Cable retention

	Fort
Rated Input power (AMPS)	16amps
C13 - Output connections	8
C19 - Output connections	✕

Switchboard

Standard switchboard

Single Phase 0RU 20 Amp

Standard inclusions

220V TO 240V - 50/60HZ

Easy UPS installation

Surge and RCD protection

Power cable length 5m

Optional upgrades

Power cable length 10m

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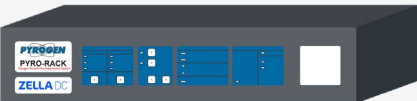## UPS (Uninterruptible Power Supply) and Batteries

OPTIONAL

Choose our UPS or add your own (vendor agnostic).

When you choose to buy a UPS and battery banks from Zella DC, these are rack mounted, and installed during factory build.

2kVA UPS DAKER Plus (310171)
6 x 12V 7.2AH internal batteries - 2RU
Estimated backup time - 10 minutes

Fire Protection

OPTIONAL

Rack mounted fire protection (Pyrorack), mounted at the top of the Zella Fort

10 year life span

Human friendly, equipment friendly and environmentally friendly

Easy to maintain and replace canister

Monitored

Cooling System

The Zella Fort comes with a single cooling system.

Single Cooling - Standard	Single Cooling - Upgrade
2.5kW (7165 BTU)	3.5kW (11 942 BTU)

Condenser size (mm): 550H x 675L x 284W

Gas Type R32

Max pipe length 20m and max level difference 15m

2.5kW (8530 BTU) Condenser weight (kg): 26	Liquid pipe: 6.4mm Gas pipe: 9.5mm	
3.5kW (11 942 BTU) Condenser weight (kg): 26	Liquid pipe: 6.4mm Gas pipe: 9.5mm	
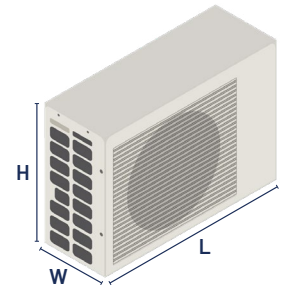
Additional Information

Pre-commissioned cooling system (no installation required)

5 meters flexi hose for easy maneuvering (easy access through narrow doors)

Zella Fort powers the external condenser

All condensers are pre-gassed

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Monitoring

PDView comes standard with Zella Fort and allows you to quickly gain complete access and control to your Zella Fort straight from your smartphone or laptop. The PDView App allows you to push program updates, set up SNMP traps, pull diagnostic files, test features/functionality, and more.

PDView allows you to manages each micro data centre individually:

✓ Turns your tablet/phone into remote display (iOS & Android)

✓ View your critical data via your smart device

If you plan to manage multiple units, we recommend using PowerIQ which allows you to centrally manage and control your distributed micro data centres from a single pane of glass.

Power IQ DCIM Monitoring Software enables IT managers to closely monitor and efficiently utilize their micro data centre power infrastructure. Data center health maps, power analytics, cooling charts, and reports alert you to potential trouble and help you understand real-time power load, trends, and capacity at all levels of infrastructure. A configurable dashboard provides vendor agnostic views of power capacity, environmental health, and energy consumption. Get single-click access to micro data power, cooling, airflow, events, and much more.

Main features include:

✓ Environment Monitoring
✓ Energy Management
✓ Power Management
✓ Vendor Agnostic Management
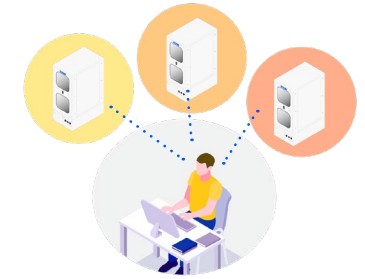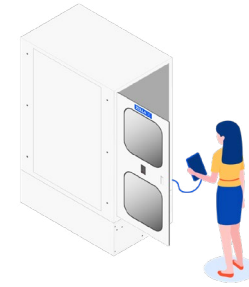
PDView *(standard)*	Power IQ *(optional)*
Singular - managing one Micro Data Centre	Multiple - intended for managing multiple Micro Data Centres
Network independent - no network required	Network dependent - requires a network
Integrated within Zella Fort	Hosted in the cloud/on premises
Standard interface	Customisable interface
Pre-programmed within Zella Fort Rapid - ready for the Edge	DCIM - ready to receive notifications from your Edge
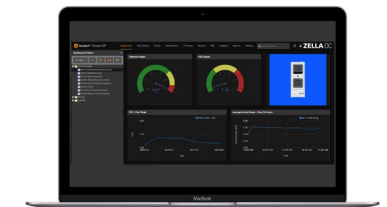
Access Control

Standard

Security Keypad and one Access Card (Fob) included per Fort.

Optional

Additional access cards

Barrel key lock access

Other security options are available.
Contact Zella DC for more information.

Sensors

Single cooling - one temperature sensor	Dual cooling - two temperature sensors
Door sensor alarm	Fire and fire fault alarm
Water sensor	Web camera
Vibration sensor (optional)	Proximity sensor (optional)

Cyber Security

Our intelligent micro data centres are equipped with the latest network security protocols, the most diverse options for user authentication and management, and leverage best in class data encryption methods.

Our products are continuously updated in order to provide the safest deployment experience while meeting the increased network security requirements in high-risk environments.

Password policies. Password expiration ensures passwords are refreshed periodically, preventing hackers from accessing the Zella Pro from any known security breaches.

Firewalls. IP-Based Access control Lists (IP ACL) and Role-Based Access Control (RBAC).

Encryptions. We only enable secure encrypted communication by default (HTTPS and SSH). We use the strongest encryption in the industry.
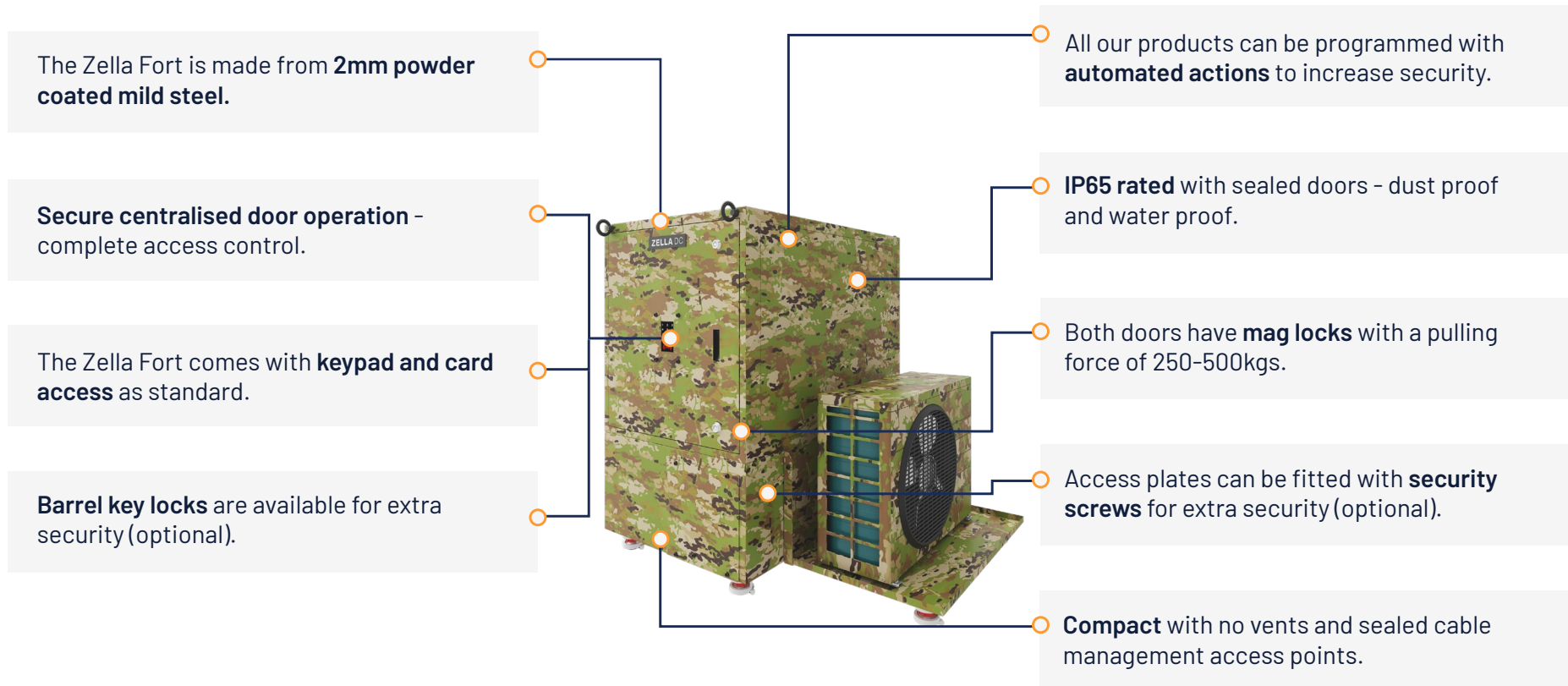
Defences in Depth. Blocking access after repeated failed login, timing out inactive sessions, limiting use of same login, restricted service agreement warnings.

Certificates. CA Certificates and Self-Signed Certificates.

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Physical Security

The Zella Fort is made from **2mm powder coated mild steel.**

Secure centralised door operation - complete access control.

The Zella Fort comes with **keypad and card access** as standard.

Barrel key locks are available for extra security (optional).

All our products can be programmed with **automated actions** to increase security.

IP65 rated with sealed doors - dust proof and water proof.

Both doors have **mag locks** with a pulling force of 250-500kgs.

Access plates can be fitted with **security screws** for extra security (optional).

Compact with no vents and sealed cable management access points.

Alarms and Automation

All our products are pre-programmed with a series of automated actions before they leave our warehouse. These automations, that you will be able to further customise to suit your specific needs, are designed to protect your assets and to give you peace of mind.

Loss of Power. In the event of a power cut, the Zella Fort can be programmed to initiate a shut down of non-critical equipment or to turn on a back-up generator.

Temperature fluctuations. When a change in temperature is detected, the Zella Fort can be automated to switch on the spare cooling system, to regulate the temperature or even to open a door.

Physical security breaches. If the unit senses any vibration that suggests someone is tampering with it, not only will this send an alert, but it will also activate the internal camera to capture images.

Full fire control. We've automated this vital function to regularly monitor the system, meaning you will receive an instant notification should there be a problem.

Issues with server reachability. As the Zella Fort continuously pings the servers, if at any time a reply isn't received then an automatic program can be installed that will reboot the server.

Warranty

1 YEAR OPTIONAL WARRANTY — 12 months Zella Care warranty. Applies to all internal electrical and cooling components only.

2-5 YEAR OPTIONAL WARRANTY — Extra 2 to 5 years warranty (includes the standard warranty)

Certifications and Ratings

Zella DC Fort Series/Componentry comply with many international standards.

IP65   RoHS COMPLIANT   UL

PSE   CE   ISO

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Our product range – Technical Specifications

ZELLA Pro `AC`
Your indoor data centre
Download

ZELLA Pro `DC`
Your indoor data centre
Download

ZELLA Hut `AC`
Your outdoor data centre
Download

ZELLA Hut `DC`
Your outdoor data centre
Coming Soon

ZELLA Max `AC`
Your containerised data centre
Download

ZELLA Max `DC`
Your containerised data centre
Coming Soon

ZELLA Pro `▶▶`
Your instant data centre
Download

ZELLA Fort
Your rugged data centre

ZELLA DC

ZELLA DC

Your data centre, your way

About Zella DC

Over a decade ago Zella DC pioneered the micro data centre. Since then, our next-generation server room in a box have been proven to work in the harshest environments on earth. The result is a vendor-agnostic approach to software, hardware manufactured to global standards, and partners across six continents.

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