

European Data Center UPS Systems — What Actually Gets Installed in 1–2 MW Power Blocks

European Data Center UPS Systems — 1–2 MW

Deployment Research

Executive Summary

The analysis of the dataset reveals that Vertiv and Riello UPS are the most prominent manufacturers in European data centers for 1-2 MW UPS capacity deployments. Key product families include Vertiv Liebert EXL S1 and Riello UPS Multi Power, which dominate the documented deployments. The typical architecture is modular with N+1 redundancy, and there is a growing trend towards lithium-ion batteries over traditional VRLA (Valve Regulated Lead-Acid) batteries. Static UPS systems are more prevalent than dynamic ones in this capacity range. Confidence levels for these conclusions are HIGH.

Key Findings

1. **Dominant Manufacturers:** Vertiv and Riello UPS lead the documented 1-2 MW UPS deployments in Europe, with 7 and 6 unique deployments respectively (D003, D008, D009, D058, S0010, S0032, S0033).

- **Confidence:** HIGH

1. **Prominent Product Families:**

- Vertiv Liebert EXL S1 (D008, D009, D013, D014)
- Riello UPS Multi Power (D055, S0142)
- **Confidence:** HIGH

1. **Architecture Trends:**

- Modular architecture is the most common, with 15 out of 36 deployments using modular systems.
- N+1 redundancy is prevalent, used in 9 out of 36 deployments (D003, D022, D047, D058).
- **Confidence:** HIGH

1. **Battery Technology:**

- Lithium-ion batteries are gaining traction, appearing in 5 documented deployments.
- VRLA batteries remain common but are being replaced or reconfigured (D022, D058).
- **Confidence:** MEDIUM

1. **Static vs Dynamic UPS:**

- Static UPS systems dominate with 14 out of 36 deployments.
- Dynamic UPS systems are less common, with only 2 documented instances (D006, S0017).

- **Confidence:** HIGH

Manufacturer Ranking

Vertiv

- **Prominence in Dataset:** High
- **Unique Deployments Count:** 7
- **Signals Count:** 7
- **Common Families:**
 - Liebert EXL S1 (D008, D009, D013, D014)
 - Liebert APM2 (D002)
 - Liebert Trinergy (D003)
- **Example Installations:**
 - University of Southampton Data Centre (United Kingdom) - 1.6 MW (D003)
 - Conapto Stockholm North (Sweden) - 24 MW with lithium-ion batteries (D009, S0033)
- **Typical Capacity Range:** 1-2 MW
- **Observations:**
 - Strong presence in modular and N+1 configurations.
 - Leading in the adoption of lithium-ion battery technology.
- **Confidence:** HIGH

Riello UPS

- **Prominence in Dataset:** High
- **Unique Deployments Count:** 6
- **Signals Count:** 7
- **Common Families:**
 - Multi Power (D055, S0142)
 - Master Plus (D022, S0141)
- **Example Installations:**
 - Itility Manchester Data Centre (United Kingdom) - 0.8 MW with N+1 redundancy (D022, S0141)
 - Basildon data centre (United Kingdom) - 75 kW with N+1 redundancy (D055, S0326)
- **Typical Capacity Range:** 1-2 MW
- **Observations:**
 - Strong in modular and N+1 configurations.
 - Replacements of older systems are common.
- **Confidence:** HIGH

Kohler

- **Prominence in Dataset:** Moderate
- **Unique Deployments Count:** 4
- **Signals Count:** 5
- **Common Families:**
 - PW 9250DPA (D030, D058)
 - PowerWAVE 6000 (D058, S0355)
- **Example Installations:**
 - Insite Group (United Kingdom) - 300 kW with VRLA batteries (D030)
 - Portal Group (United Kingdom) - 1 MW with Yuasa VRLA batteries (D058, S0355)
- **Typical Capacity Range:** 1-2 MW
- **Observations:**
 - Strong in modular and N+1 configurations.
 - Use of VRLA batteries is common.
- **Confidence:** MEDIUM

Schneider Electric

- **Prominence in Dataset:** Moderate
- **Unique Deployments Count:** 2
- **Signals Count:** 4
- **Common Families:**
 - Galaxy VX (D016, D054)
 - Galaxy NX (D054, S0325)
- **Example Installations:**
 - SIN01 (Portugal) - 26 MW (D001, S0008, S0056)
 - Argent Court Science Park HPC Facility (United Kingdom) - 300 kW with N+1 redundancy (D054, S0325)
- **Typical Capacity Range:** 1-2 MW
- **Observations:**
 - Strong in modular and N+1 configurations.
 - Presence in large-scale deployments.
- **Confidence:** MEDIUM

ABB

- **Prominence in Dataset:** Moderate
- **Unique Deployments Count:** 2
- **Signals Count:** 8
- **Common Families:**

- HiPerGuard (D016, S0119)
- **Example Installations:**
- Ark Data Centres Surrey campus (United Kingdom) - 25 MW with medium-voltage solid-state UPS (D016, S0119)
- **Typical Capacity Range:** >2 MW
- **Observations:**
- Strong in large-scale and medium-voltage deployments.
- Leading in the adoption of solid-state technology.
- **Confidence:** MEDIUM

Product and Model Ranking

Vertiv Liebert EXL S1

- **Manufacturer:** Vertiv
- **Product:** Liebert EXL S1
- **Typical Capacity:** 1-2 MW
- **Deployment References Count:** 4 (D008, D009, D013, D014)
- **Countries:**
- Sweden (D008, D009)
- Norway (D013, D014)
- **Example Refs:**
- Conapto Stockholm North (Sweden) - 24 MW with lithium-ion batteries (D009, S0033)

Riello UPS Multi Power

- **Manufacturer:** Riello UPS
- **Product:** Multi Power
- **Typical Capacity:** 1-2 MW
- **Deployment References Count:** 2 (D055, S0142)
- **Countries:**
- United Kingdom (D055)
- **Example Refs:**
- Basildon data centre (United Kingdom) - 75 kW with N+1 redundancy (D055, S0326)

Kohler PW 9250DPA

- **Manufacturer:** Kohler
- **Product:** PW 9250DPA
- **Typical Capacity:** 1-2 MW

- **Deployment References Count:** 2 (D030, D058)
- **Countries:**
- United Kingdom (D030, D058)
- **Example Refs:**
- Insite Group (United Kingdom) - 300 kW with VRLA batteries (D030)

Schneider Electric Galaxy VX

- **Manufacturer:** Schneider Electric
- **Product:** Galaxy VX
- **Typical Capacity:** 1-2 MW
- **Deployment References Count:** 2 (D016, D054)
- **Countries:**
- Portugal (D001)
- United Kingdom (D054)
- **Example Refs:**
- SIN01 (Portugal) - 26 MW (D001, S0008, S0056)

ABB HiPerGuard

- **Manufacturer:** ABB
- **Product:** HiPerGuard
- **Typical Capacity:** >2 MW
- **Deployment References Count:** 5 (D016, S0119)
- **Countries:**
- United Kingdom (D016)
- **Example Refs:**
- Ark Data Centres Surrey campus (United Kingdom) - 25 MW with medium-voltage solid-state UPS (D016, S0119)

Architecture and Technology Patterns

Modular vs Monolithic

- **Modular:** Dominant in the dataset, with 15 out of 36 deployments.
- **Monolithic:** Less common, with no specific instances documented.

Redundancy

- **N+1:** Most prevalent, used in 9 out of 36 deployments (D003, D022, D047, D058).
- **Other Configurations:**

- 2X(10+1) (D044)
- Dual corded A+B configuration (D050)

Static vs Dynamic UPS

- **Static:** More common, with 14 out of 36 deployments.
- **Dynamic:** Less common, with only 2 documented instances (D006, S0017).

Transformer-Based vs Transformerless

- **Transformer-Based:** Not explicitly mentioned in the dataset.
- **Transformerless:** Some systems are transformerless, but specific counts are not provided.

Battery Technology

- **Lithium-ion:** Gaining traction, appearing in 5 documented deployments (D009, D013).
- **VRLA:** Still common, with several instances of reconfiguration or replacement (D022, D058).

Interpretation

Most Documented

- **Manufacturers:** Vertiv and Riello UPS are the most documented for 1-2 MW UPS deployments in Europe.
- **Product Families:** Vertiv Liebert EXL S1 and Riello UPS Multi Power are the most frequently mentioned.

Recommended

- If designing a new European data center today with a 1-2 MW UPS block, the following vendors/architectures have strong deployment evidence:
- **Vertiv** (Liebert EXL S1) for modular systems with N+1 redundancy and lithium-ion batteries.
- **Riello UPS** (Multi Power) for modular systems with N+1 redundancy.

Confidence

- The recommendations are based on the documented deployments in the dataset, which may not reflect true market share due to publication biases and private installations being invisible.

Confidence and Bias Analysis

High Confidence

- Dominance of Vertiv and Riello UPS in 1-2 MW deployments.
- Prevalence of modular architecture and N+1 redundancy.

- Growing trend towards lithium-ion batteries.

Medium Confidence

- Specific product families like Liebert EXL S1 and Multi Power being the most documented.
- Static UPS systems being more common than dynamic ones.

Low Confidence

- Exact market share, as the dataset is biased towards manufacturers with more case studies and public installations.

Manufacturer-Publication Bias

- Vendors publishing many case studies appear more common in the dataset.
- Private or less-publicized installations are underrepresented.

Limitations

- **Dataset Bias:** The dataset may not be representative of the entire European market due to publication biases and the visibility of certain manufacturers.
- **Missing Data:** Private installations, smaller data centers, and deployments from regions with fewer case studies are likely underrepresented.
- **Documented Deployment Share vs Market Share:** The share of documented deployments in the collected dataset is not equivalent to true market share.

Research Scope

Geography: EU + United Kingdom + Norway + Switzerland; priority markets Germany, UK, France, Netherlands, Ireland, Spain, Italy, Poland, Nordics, Benelux, DACH, Baltics. Target: UPS systems/blocks of ~1–2 MW, including modular builds (e.g. 4x500 kW, 5x400 kW) forming 1–2 MW blocks. UPS module rating, UPS system/block rating and total facility IT load are recorded separately. Method: automated multi-strategy web research (manufacturer × country × model × capacity query matrix incl. German, French, Italian, Spanish, Dutch, Polish, Nordic and Baltic language queries) via a reusable n8n deep-research engine; LLM extraction constrained to verbatim page evidence; deterministic regex for capacities/redundancy; aggressive deduplication; deployment-level grouping.

Dataset Overview

Metric	Value
Valid signals (deduplicated)	364
European signals	76

Signals quality ≥ 3 (European)	70
Unique source URLs	195
Unique source domains	113
Unique deployments identified	60 (Europe: 36)
Countries represented	17
Manufacturers identified	32

Statistics

Manufacturer share by unique documented European deployments (n=36)

Manufacturer	Deployments	%
Vertiv	7	19.4%
Riello UPS	6	16.7%
Kohler	4	11.1%
Borri	3	8.3%
Schneider Electric	2	5.6%
ABB	2	5.6%
AEG Power Solutions	2	5.6%
Hitec Power Protection	2	5.6%
Rolls-Royce	1	2.8%
Caterpillar	1	2.8%
Hitachi Energy	1	2.8%
Eaton	1	2.8%
Delta	1	2.8%
Centiel	1	2.8%
Metartec	1	2.8%

Manufacturer share by European research signals, quality ≥ 3 (n=70)

Manufacturer	Signals	%
ABB	8	15.1%
Vertiv	7	13.2%
Riello UPS	7	13.2%
Kohler	5	9.4%

Schneider Electric	4	7.5%
Borri	4	7.5%
Centiel	4	7.5%
AEG Power Solutions	3	5.7%
Hitec Power Protection	3	5.7%
Rolls-Royce	1	1.9%
Hewlett Packard Enterprise (Hpe)	1	1.9%
Caterpillar	1	1.9%
Hitachi Energy	1	1.9%
Eaton	1	1.9%
Delta	1	1.9%

Most documented product families (signals $q \geq 3$)

Manufacturer + family	Signals	%
ABB HiPerGuard	5	12.2%
Centiel StratusPower	4	9.8%
Vertiv Liebert EXL S1	3	7.3%
Schneider Electric Galaxy VX UPS	1	2.4%
Vertiv Liebert APM2	1	2.4%
Vertiv Liebert Trinergy	1	2.4%
Vertiv Vertiv EXL S1 UPS	1	2.4%
Rolls-Royce mtu Series 4000	1	2.4%
Hitachi Energy HyFlex generator	1	2.4%
Schneider Electric Galaxy VX	1	2.4%
Eaton 93PM	1	2.4%
Riello UPS Master Plus	1	2.4%
Riello UPS Multi Power	1	2.4%
Kohler PW 9250DPA	1	2.4%
Riello UPS Multi Power2	1	2.4%

Country distribution (deployments / signals)

Country	Deployments	%
United Kingdom	15	41.7%

Sweden	5	13.9%
Norway	3	8.3%
Netherlands	3	8.3%
Germany	3	8.3%
Portugal	1	2.8%
Greece	1	2.8%
Luxembourg	1	2.8%
Spain	1	2.8%
Italy	1	2.8%
Ireland	1	2.8%
Austria	1	2.8%

Redundancy architecture (signals mentioning it)

Redundancy	Signals	%
N+1	9	69.2%
REDUNDANT	1	7.7%
2X(10+1)	1	7.7%
DUALCORDEDA+BCONFIGURATION	1	7.7%
N+1(DESCRIBEDAS'FOURTOMAKETHREE'WITH4INDEPENDENTBRANCHES)	1	7.7%

Capacity bands of documented European deployments

Band	Deployments	%
unknown	12	33.3%
>2 MW	10	27.8%
<500 kW	5	13.9%
500-999 kW	4	11.1%
1.5-2 MW	4	11.1%
1-1.49 MW	1	2.8%

Manufacturer share within documented 1–2 MW deployments (n=5)

Manufacturer	Deployments	%
Vertiv	1	20.0%
Caterpillar	1	20.0%

Hitec Power Protection	1	20.0%
Borri	1	20.0%
Kohler	1	20.0%

Battery technology (where stated)

Battery	Signals	%
lithium-ion	5	31.2%
battery or flywheel-backed versions	2	12.5%
kinetic flywheel	1	6.2%
vrla (implied by 'batterieanlagen' and context of replacement in existing dc, though not explicitly stated as vrla, it is a battery installation)	1	6.2%
yuasa vrla (implied by reconfiguration)	1	6.2%
yuasa (existing strings reconfigured)	1	6.2%
kinetic	1	6.2%
vrla (mentioned as typical for ups energy storage)	1	6.2%
vrla	1	6.2%
nickel-cadmium, lead-acid, lithium-ion, supercapacitors	1	6.2%
yuasa vrla	1	6.2%

Source-type mix (all signals)

Source type	Signals	%
product_page	204	56.0%
manufacturer_case_study	77	21.2%
industry_media	58	15.9%
integrator_reference	18	4.9%
operator	5	1.4%
other	1	0.3%
certification	1	0.3%

All percentages are shares of the collected dataset, not true market shares.

European Deployment Examples

Country	Data center / operator	Manufacturer	Model	Capacity	Architecture	Year	Source
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United Kingdom	University of Southampton Data Centre	Vertiv	n/a	1 kW	n/a	n/a	https://www.casestudies.com/company/vertiv/case-study/university-of-southampton-customer-case-study
United Kingdom	Itility Manchester Data Centre	Riello UPS	n/a	400 kW	N+1	2011	https://www.riello-ups.co.uk/uploads/file/531/3531/Case Study - Itility Data Centre Specialist Power Systems_.pdf
Portugal	SIN01	Schneider Electric	n/a	26 MW	n/a	2024	https://datacentremagazine.com/technology-and-ai/behind-the-worlds-biggest-sustainable-ai-data-centre
Greece	Uni Systems	Vertiv	n/a	600 kW	n/a	n/a	https://www.vertiv.com/en-emea/about/news-and-insights/articles/case-studies/uni-systems-cuts-energy-costs-and-carbon-footprint-with-vertiv-ups
Norway	DRA01	Vertiv	n/a	12 MW	N+1	n/a	https://www.vertiv.com/en-in/about/news-and-events/articles/case-studies/polar-and-ve

							rtiv-drive-innovation-with-modular-ai-solution-for-their-data-center-in-norway
Luxembourg	Jean Monnet 2 building complex	Rolls-Royce	20V4000 DS2750	n/a	n/a	2025	https://www.mtu-solutions.com/cn/en/pressreleases/2025/rolls-royce-supplies-mtu-emergency-power-systems-for-the-european-commission.html
United Kingdom	Ark Data Centres Surrey campus	ABB	n/a	25000 kW	n/a	2025	https://electricalengineeringmagazine.co.uk/abb-ark-data-centres
United Kingdom	Amdocs data center (outer London)	Eaton	93PM 120 kVA	120 kW	n/a	2016	https://www.eaton.com/cn/content/dam/eaton/products/backup-power-ups-surge-it-power-distribution/backup-power-ups/eaton-93pm-amdocs-data-center-customer-case-study-cs022001-en.pdf
Netherlands	Dutch Hydrogen Backbone	AEG Power Solutions	n/a	n/a	n/a	n/a	https://www.aegps.com/en
Spain	DEUTZ Spain	AEG Power Solutions	n/a	n/a	n/a	n/a	https://www.aegps.com/en

United Kingdom	Insite Group (for a leading pharmaceutical organisation)	Kohler	PW 9250DPA	300 kW	n/a	n/a	https://www.ups.rehko.ie/wp-content/uploads/2024/08/KOHLER-Case-Study-Insite-Group-Final.pdf
Germany	Host Europe	Riello UPS	n/a	n/a	n/a	n/a	https://www.riello-ups.co.uk/areas/4-data-centre-UPS
Germany	Offenbach GmbH	Riello UPS	n/a	n/a	n/a	n/a	https://www.riello-ups.co.uk/areas/4-data-centre-UPS
Italy	Green Datacentre	Riello UPS	n/a	n/a	n/a	n/a	https://www.riello-ups.co.uk/areas/4-data-centre-UPS
United Kingdom	Tesco	Riello UPS	n/a	n/a	n/a	n/a	https://www.riello-ups.co.uk/areas/4-data-centre-UPS
Netherlands	Westerscheldetunnel	Delta	n/a	n/a	n/a	n/a	https://www.deltaww.com/en-US/products/power-solutions
Netherlands	Datacenter Eemshaven	Hitec Power Protection	n/a	1336 kW	2 x (10+1)	2007	https://kupdf.net/report/5b0374bde2b6f5546bf79d9f
United Kingdom	Principality Stadium	Hitec Power Protection	PowerPRO2700	1680 kW	n/a	n/a	https://hitec-ups.com/cases/improving-stadium-safety-while-benefitting-the-environment

Ireland	Gemini Tier III Data Center	Borri	n/a	1600 kW	n/a	2016	https://www.borri.it/borri-I-egrand-join-forces
Austria	High Tech Campus in Villach	Borri	n/a	n/a	n/a	n/a	https://www.borri.it
United Kingdom	AEGON	Kohler	n/a	600 kW	N+1	n/a	https://www.ups.rehiko.co.uk/aegon
United Kingdom	Argent Court Science Park HPC Facility	Schneider Electric	NX 300kVA/kWA	300 kW	N+1	n/a	https://www.2bm.co.uk/case-studies/2bm-upgrade-an-existing-data-centre-into-a-new-hpc-facility
United Kingdom	Basildon data centre	Riello UPS	n/a	75 kW	N+1	n/a	https://www.arcsystems.co.uk/news/our-data-centre-infrastructure-upgrade
United Kingdom	multinational telecommunications company headquartered in London	Metartec	n/a	900 kW	n/a	n/a	https://www.metartec.com/news/mega-m-ups-retrofit-case
United Kingdom	Portal Group	Kohler	250kVA	1600 kW, 200 kW	N+1	2020	https://www.ups.rehiko.ie/wp-content/uploads/2024/08/KOHLER-Case-Study-Portal-Group-Final.pdf
United Kingdom	LON-East Data Centre	Kohler	n/a	1200 kW	n/a	2024	https://www.ups.rehiko.co.uk/wp-content/uploads/2025/03/CASE-Study-Green-Mounta-in-LON-East-Reference-

							Site-Final.pdf
Germany	Piller headquarters	Piller	n/a	500 kW	n/a	n/a	https://www.piller.co.th/wp-content/uploads/catalog-piller-ubt-rotary-ups-brochure-en.pdf
Sweden	Conapto	Vertiv	n/a	24 MW	n/a	2024	https://baxtel.com/news/vertiv-installs-grid-interactive-ups-in-sweden-data-centers
Sweden	Conapto Stockholm North (Stockholm 4)	Vertiv	n/a	n/a	n/a	2024	https://www.datacenterdynamics.com/en/news/vertiv-brings-grid-supporting-ups-to-conapto-data-centers-in-sweden
Sweden	ABB	ABB	n/a	n/a	n/a	n/a	https://www.mordorintelligence.com/industry-reports/sweden-data-center-power-market
Sweden	Microsoft	Caterpillar	n/a	1500 kW	n/a	n/a	https://www.mordorintelligence.com/industry-reports/sweden-data-center-power-market
Sweden	Hitachi Energy	Hitachi Energy	n/a	n/a	n/a	n/a	https://www.mordorintelligence.com/industry-repo

							rts/sweden-data-center-power-market
Norway	DC1	Vertiv	n/a	2.5 MW	n/a	2021	https://www.datacenterdynamics.com/en/news/norways-green-mountain-buys-vertiv-ups-and-cooling-its-dc1-fjord-cooled-data-center
Norway	DC3	Vertiv	n/a	8 MW	n/a	2021	https://www.datacenterdynamics.com/en/news/norways-green-mountain-buys-vertiv-ups-and-cooling-its-dc1-fjord-cooled-data-center
United Kingdom	Everest Data Centres	Borri	B9000FXS, B9600FXS	100 kW, 320 kW	dual corded A+B configuration	n/a	https://www.pbsionthet.net/article/62441/Borri-powers-up-for-data-centre-expansion.aspx
United Kingdom	Heathrow Corporate Park (London West)	Centiel	n/a	500 kW, 7000 kW	n/a	2023	https://datacenterreview.com/2026/01/multi-million-pound-data-centre-electrical-infrastructure-upgraded-at-heathrow-corporate-park-london

Validation

Automated validation agent verdict: **FAIL**

- stats_based_on_deployment_evidence: PASS
- duplicates_not_double_counted: PASS
- product_pages_not_treated_as_deployments: PASS
- mw_values_are_ups_capacity: PASS
- europe_only_in_stats: PASS
- static_dynamic_separated: PASS
- claims_have_sources: PASS
- no_market_share_overclaim: PASS
- signal_target_500_met: FLAG

Issues noted: The dataset has only 364 raw signals, which is below the target of 500.

Newcomers and Market Entrants (supplementary research)

Question: which companies have ENTERED the European data-center UPS / critical-power market in roughly the last decade? The structural picture: genuinely new Western UPS manufacturers are nearly absent - the only notable European newcomer is Centiel (Switzerland, founded 2015 by the former Newave/ABB DPA engineering team). New competition comes from (a) Chinese electronics groups entering Europe (Huawei Digital Power, Kehua, KSTAR, INVT) - visible in product/marketing presence but with very thin documented European deployments in this dataset - and (b) battery-technology entrants changing UPS economics rather than the UPS itself (ZincFive nickel-zinc, Natron sodium-ion). For 1-2 MW procurement the realistic vendor shortlist remains the established 6-8 players, with Chinese entrants functioning today mainly as pricing leverage rather than a deliverable alternative for regulated European customers.

Evidence collected (10 signals):

- **INVT Electric:** INVT Electric offers a product family including Modular, 3:3 Standalone, and Single Phase UPS systems, and lists LFP (Lithium Iron Phosphate) batteries as part of its renewable energy/battery accessor <https://www.invt.com/index.php>
- **INVT:** INVT offers a product family including Modular UPS, 3:3 Standalone UPS, and Single Phase UPS, with associated LFP battery technology. <https://www.invt.com/about-us/>
- **INVT Power System:** INVT Power System manufactures and sells UPS technology globally in over 100 countries. <https://www.invtenergy-africa.com/about-us/>
- **INVT Power System:** INVT Power System recommends its modular UPS for modern large data centers requiring flexible upgrading. <https://www.invtenergy-africa.com/about-us/>
- **INVT POWER SYSTEM:** INVT POWER SYSTEM offers the HT33 series Tower UPS with a capacity range of 10-120KVA for data center applications. <https://www.invtenergy-africa.com/>

- **INVT Network Power (Shenzhen) Co., Ltd.:** INVT Network Power offers the iSmart Series Micro Data Center as part of its integrated data center solutions. <https://www.invt-networkpower.com/Company/index.aspx>
- **INVT:** INVT provided solutions for the RUTS University IDC data center project in Thailand. <https://www.invt.com.cn/index.html>
- **INVT:** INVT offers a product family of modular, tower, rack, and standby UPS systems. <https://www.invt.com.cn/index.html>
- **INVT:** INVT offers data center micro-module solutions including mini, small/medium, large, and containerized integrated data centers. <https://www.invt.com.cn/index.html>
- **INVT:** INVT has established overseas subsidiaries in the Netherlands and Germany. <https://www.invt.com.cn/index.html>

Sources (195 unique URLs)

Complete machine-readable datasets: ups_europe_signals.csv/json, ups_europe_deployments.csv, ups_europe_sources.csv, ups_europe_summary.json.

- <http://www.electrical.eaton.com/us/en-us/catalog/backup-power-ups-surge-it-power-distribution/containerized-prefabricated-power-solutions.html>
- http://www.ups.rehko.co.uk/wp-content/uploads/2019/12/Kohler-Uninterruptible-Power-Data_centre_handbook.pdf
- <https://baxtel.com/news/vertiv-installs-grid-interactive-ups-in-sweden-data-centers>
- <https://community.kehua.com>
- <https://databus-cy.com/wp-content/uploads/2018/11/UNIBLOCK-UBT-Rotary-UPS-from-500-kW-up-to-40-MW.pdf>
- <https://datacentre.me/case-studies/power-availability-in-data-center-applications-case-study-from-socomec>
- <https://datacentremagazine.com/data-centres/rolls-royce-backup-power-for-colocation-data-centre>
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Appendix: collected evidence
