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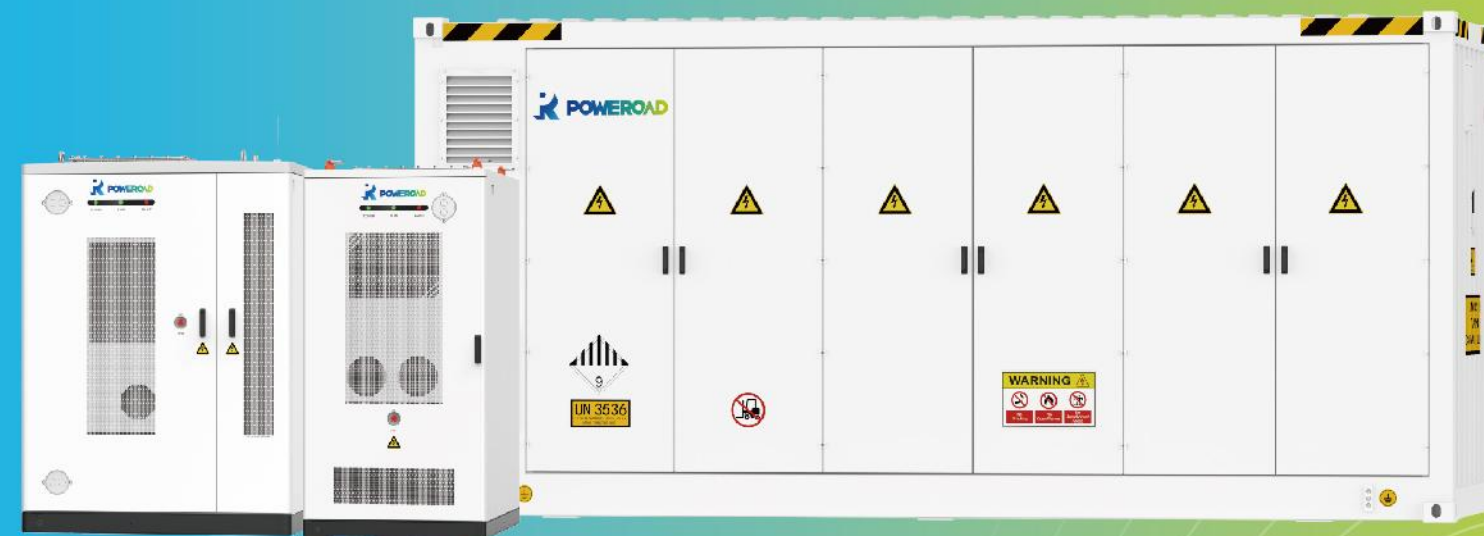
All product data provided is for reference only. Please refer to the product datasheet for actual specifications.

POWEROD
20260724 EN



Commercial & Industrial ESS Solutions

Air Cooling / Liquid Cooling



POWEROD Renewable Energy Co., Ltd.

INTRODUCTION

About POWEROAD

Founded in 2001, Poweroad Renewable Energy Co., Ltd. ("POWEROAD") is a high-tech enterprise focusing on the researching & development of lithium batteries and energy storage systems.

Catering to Commercial & Industrial ESS markets, POWEROAD has delivered hundreds of C&I energy storage projects and services globally by applying a complete pre-sales, sales and after-sales service system, with a commitment to make green energy accessible, supplying and connecting people and places all over the globe.

Utilizing advancements in BMS, EMS, and PCS technology, we've delivered our solutions in over 70 countries, amassing 800+ C&I ESS Projects.

Backed by a comprehensive service model, POWEROAD's innovative products energize projects worldwide, including Asia, Oceania, Europe, Africa and South America. We offer a scalable energy storage footprint that can help even the most remote communities, striving to make more contributions towards a greener earth.



25 Years
Experience in
Battery Industry



500+
Employees



POWEROAD GmbH
Germany Subsidiary



8+ years
Experience in
C&I ESS Deployment



1000+
Installed C&I
ESS Projects



200+
R&D Technical Staff
in 5 Centers



In-house 3-tier BMS
Own-developed BMS for BESS



**EU-based Overseas
Warehouse** in Belgium

Partners

CATL

SOLINTEG

ENJOY

solis

CALB

**KEHUA
TECH**

Sinexcel

DELTA

SCENARIOS



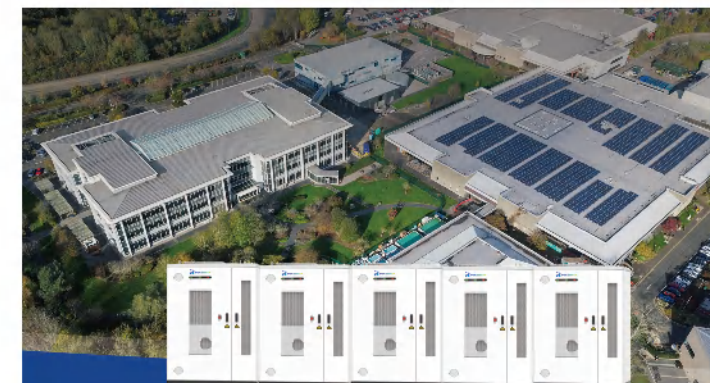
Solar Self-consumption



PV+ESS+EV Charging



Off-grid/Microgrid

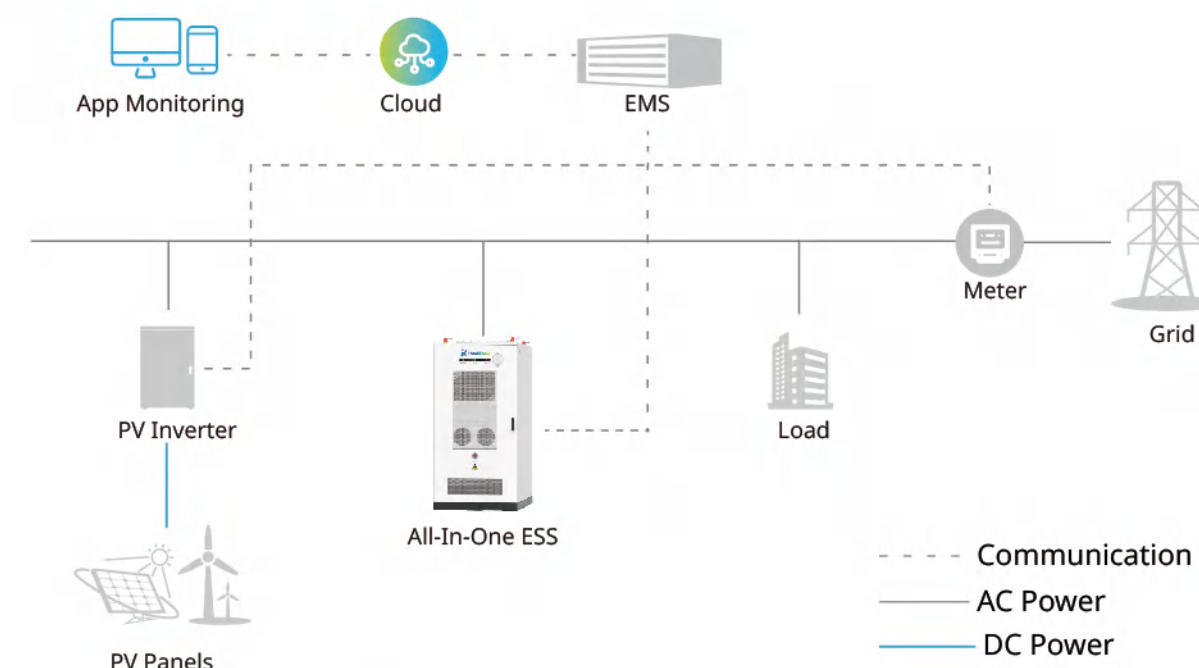


Demand Charge Reduction / Peak-shaving



Frequency Response Services

Topology



Product Portfolio



Outdoor Cabinet ESS

Air Cooling



FLEX 112 AIOS
Air Cooling ESS
(50 kW / 112 kWh)

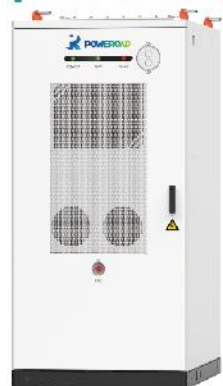


FLEX 241
Air Cooling ESS
(241 kWh)



FLEX 241 AIO
Air Cooling ESS
(105 kW / 241kWh)

Liquid Cooling



FLEX 261
Liquid Cooling ESS
(261 kWh)



FLEX 261 AIO
Liquid Cooling ESS
(130kW / 261kWh)
(125kW / 261kWh)



FLEX 418
Liquid Cooling ESS
(418 kWh)

Indoor Battery (Air Cooling)



RACK 241
(241kWh)



FRAME 241
(241kWh)

Containerized ESS



CENTRIC-L 20-3344 AIO
All-in-one Liquid Cooling Containerized ESS
(1 MW ~ 1.6 MW / 2.09 MWh ~ 3.344 MWh)



CENTRIC-L 20-5015
Liquid Cooling Containerized ESS
(5.015 MWh)

Product Advantage

1. Industry-leading LFP cells

Sourcing from renowned cell suppliers to ensure superior cell consistency.

CATL CALB

2. Advanced Thermal Management



Air Cooling System

Maintains a cell temperature difference
< 5°C across the entire cabinet for optimal uniformity.



Liquid Cooling System

Maintains a cell temperature difference
≤ 3°C across the entire cabinet for optimal uniformity.

3. Fast Installation & Expansion

Minimized CAPEX ↓



0.5 Hour for
one cabinet installation

Side-by-side
Flexible deployment

Multiple units parallel
Easy capacity expansion

4. Full-scenario Adaptability



Desert



Plateau



Seaside



Mountain



Extreme Cold



Wind & Sand



Humidity



Tropical Rainforest



Factory



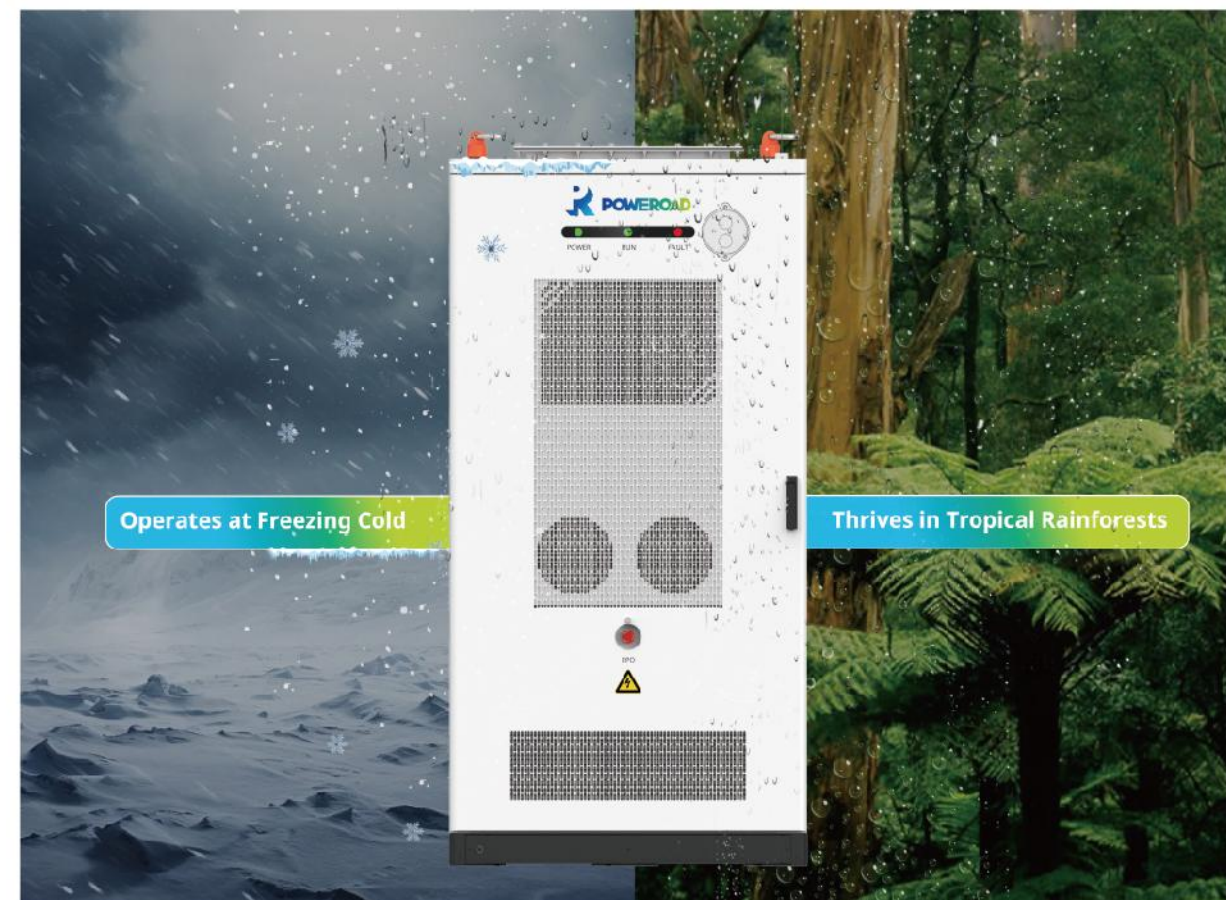
Farm



EV Charging Station



Power Plant



Operates at Freezing Cold

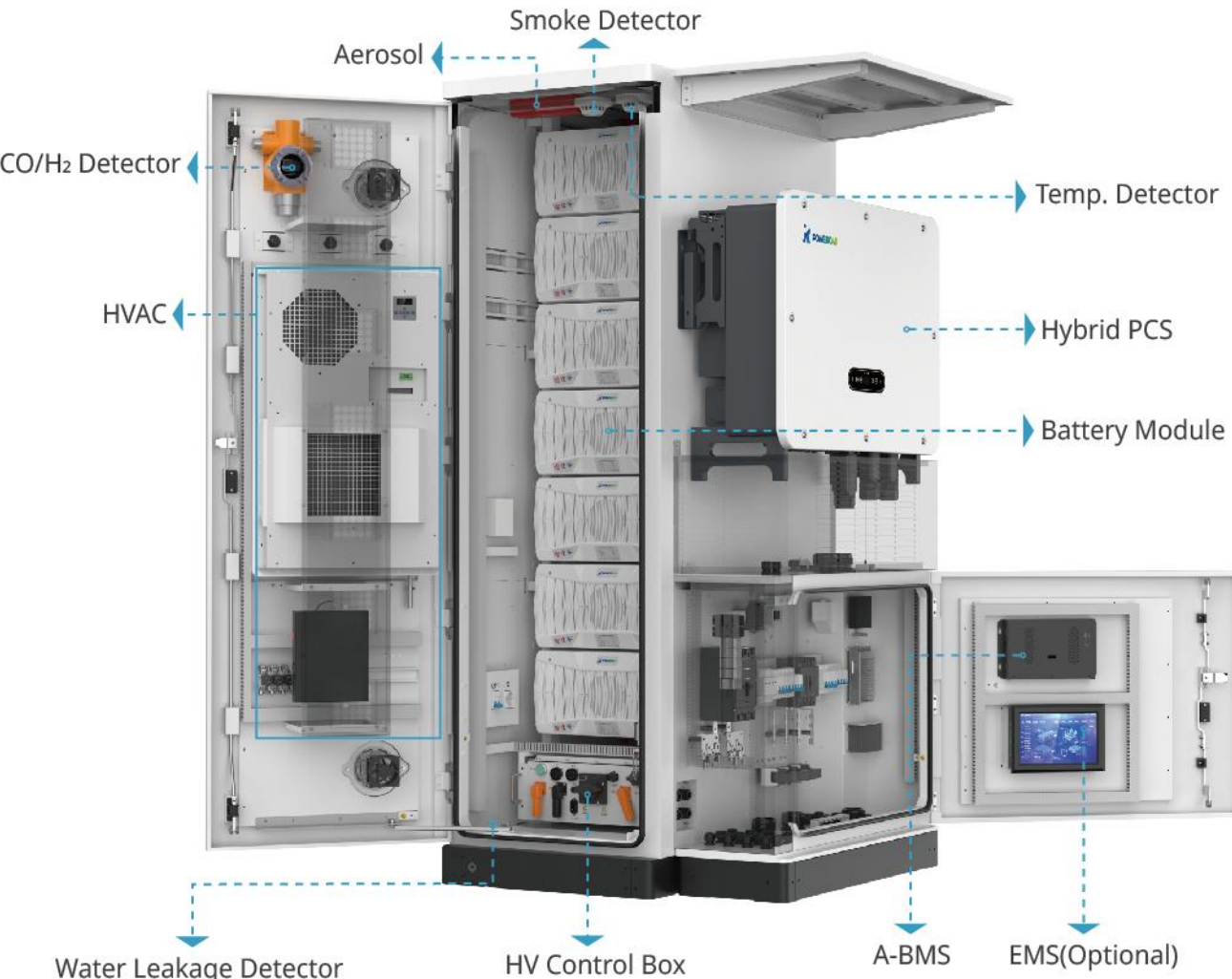
Thrives in Tropical Rainforests

FLEX 112 AIOS*

Air Cooling Integrated Hybrid ESS Solution

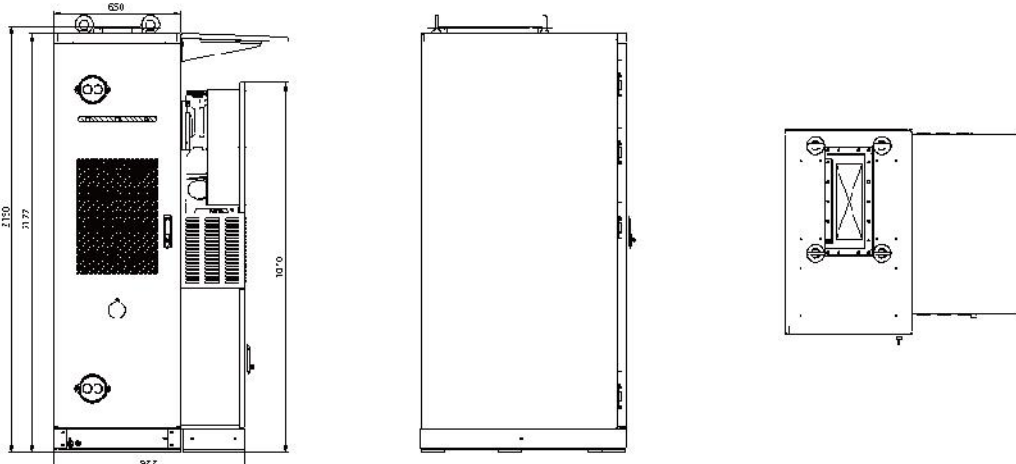


-  **Support PV access**
Integrated hybrid PCS supports direct PV string input for seamless DC-coupled PV + storage integration
-  **Active Balancing BMS**
Maximizes usable capacity & Extends battery life
-  **Suitable for Small-size C&I Scenarios**



PARAMETERS

FLEX 112 AIOS ESS PARAMETERS						
AC Parameters	Rated Power	25 kW	29.9 kW	30 kW	40 kW	50 kW
	Maximum Power	25 kW	29.9 kW	30 kW	40 kW	50 kW
	Grid Type	3P+N+PE				
	Rated Grid Voltage	400 V				
	Grid Frequency	50 / 60 Hz				
	EMC & Safety Standards	IEC/EN 62477, EN/IEC 61000				
	Grid Connection Standards	EN 50549-1/-10, C10/11, NTS 631, NRS 097, VDE 4105, G99, PPDS				
DC Parameters	Rated Voltage	358.4 V				
	Voltage Range	313.6 ~ 403.2 V				
	Rated Energy	112.537 kWh				
	Battery Cell	LFP 314 Ah				
PV Parameters	Maximum Power	50 kW	60 kW	60 kW	80 kW	100 kW
	Rated Voltage	620 V				
	Startup Voltage	135 V				
	MPPT Operating Voltage Range	200 ~ 950 V				
	Number of MPPT Inputs	4				
	PV Strings per MPPT	2 / 2 / 2 / 2				
	Maximum Current per MPPT	40 A / 40 A / 40 A / 40 A				
Other Parameters	Degree of Protection	IP55				
	Operation Temperature	-20 ~ 45 °C				
	Storage Temperature	-30 ~ 60 °C				
	Altitude	2000 m (>2000m derating)				
	Relative Humidity	5 ~ 95% (No Condensing)				
	Cooling Method	Air Cooling				
	Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Temperature detector				
	Communication	MODBUS				
	Dimensions (W x D x H)	1000 × 1050 × 2150 mm (±3mm)				
	Weight	1300 kg				

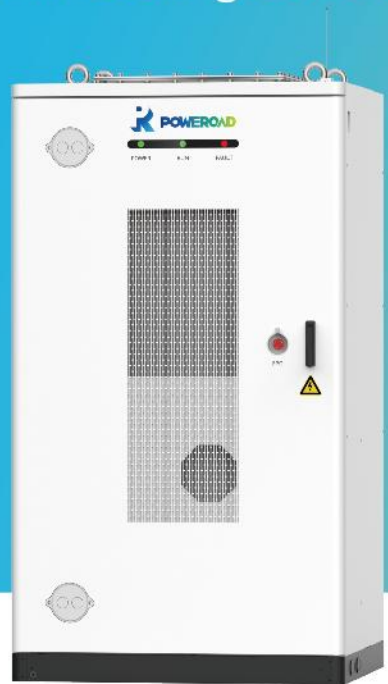


AIOS: "S" stands for Solar, featuring an integrated hybrid PCS for direct PV connection

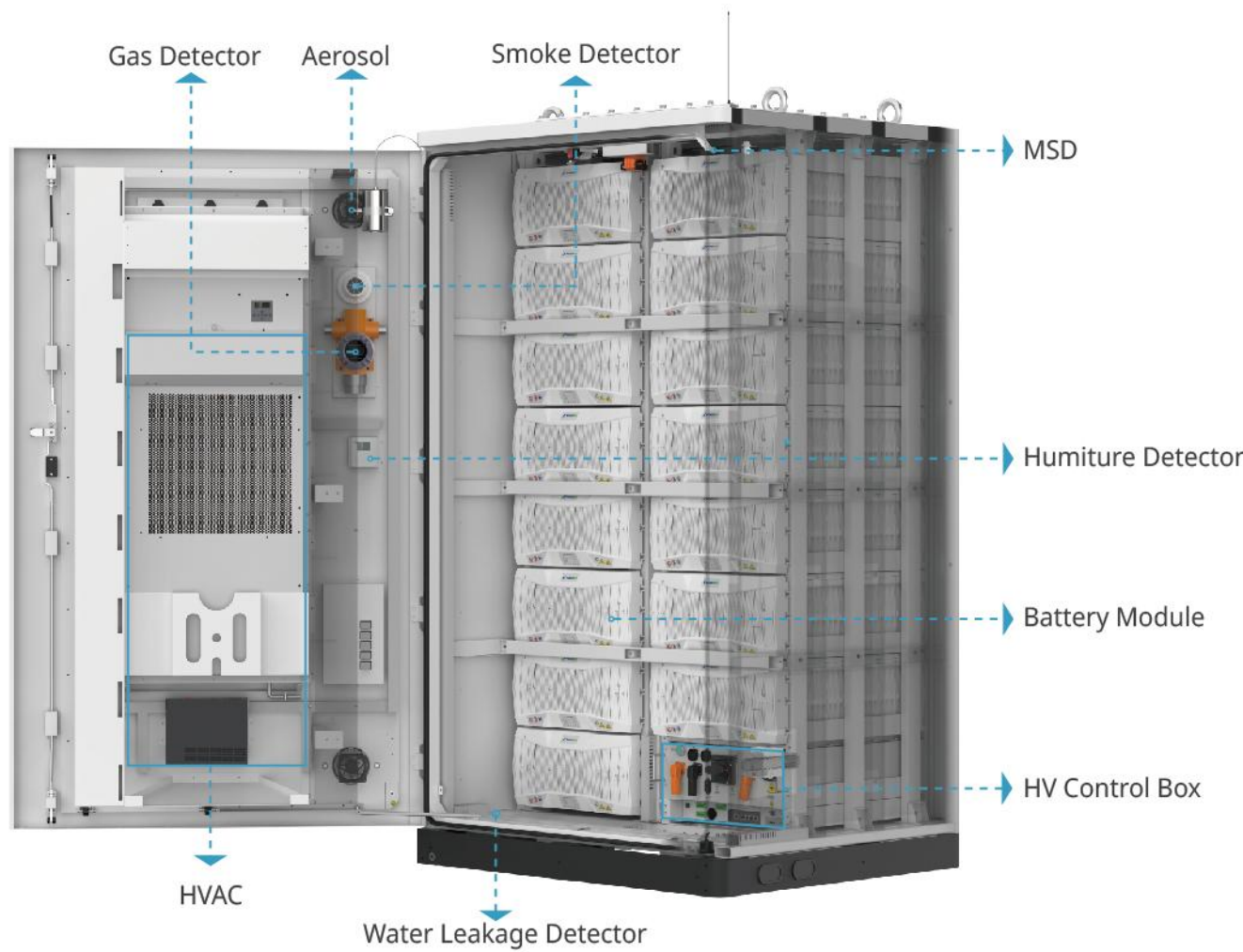
Unit: mm

FLEX 241

Air Cooling Outdoor Cabinet BESS

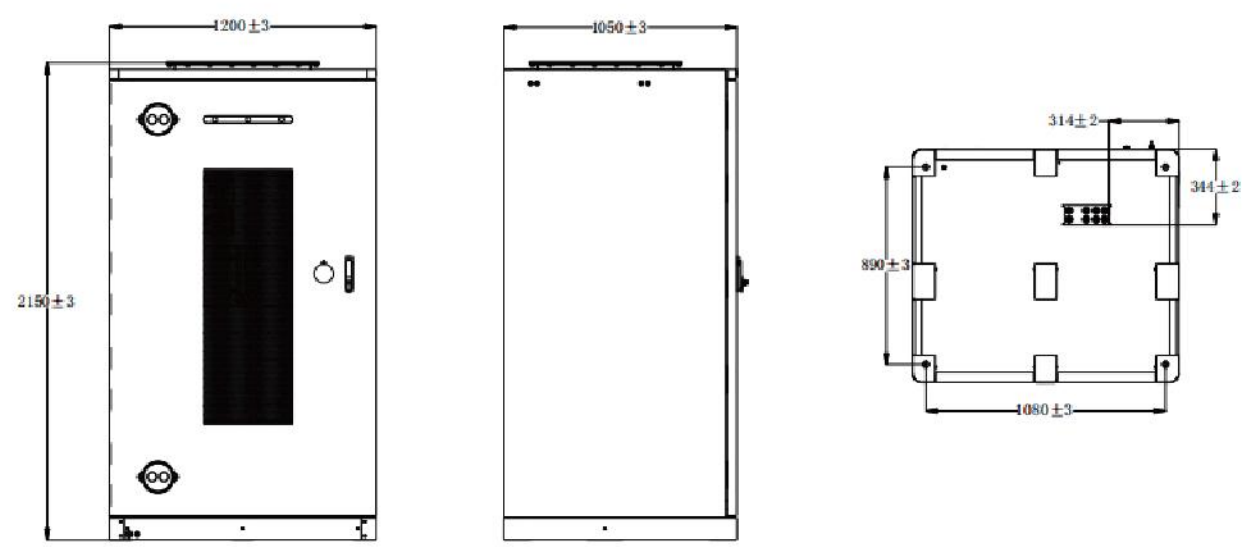


- Easy Scalability**
Up to MWh-level capacity
- Minimalist Deployment**
1.26 m² compact footprint, factory pre-assembled, plug-and-play design
- Active Balancing BMS**
Maximizes usable capacity & Extends battery life



PARAMETERS

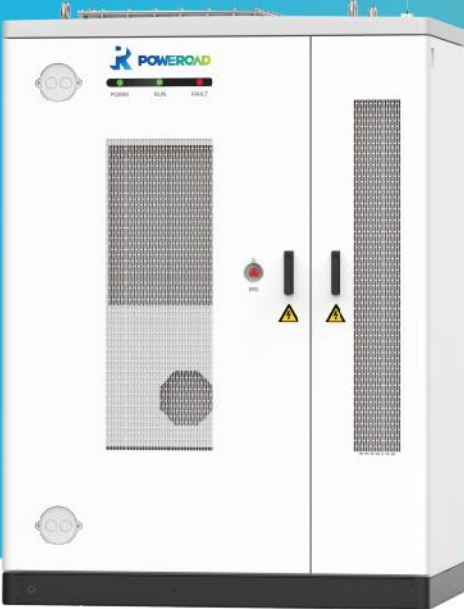
FLEX-241 ESS PARAMETERS		
DC Parameters	Rated Voltage	768 V
	Voltage Range	672 ~ 864 V
	Rated Energy	241.152 kWh
	Battery Cell	LFP 314Ah
Other Parameters	Degree of Protection	IP55
	Operation Temperature	-30 ~ 55 °C (>45°C derating)
	Storage Temperature	-40 ~ 60°C
	Altitude	2000m (>2000m derating)
	Relative Humidity	5 ~ 95% (No Condensing)
	Cooling Method	Air Cooling
	Fire Suppression System	Gas detectors, Ventilation and Exhaust System, Aerosol, Explosion vent, Water sprinkler, Humiture Detector
	Communication	MODBUS
	Dimensions (W x D x H)	1200 × 1050 × 2150 mm (±3 mm)
	Weight	2280 kg



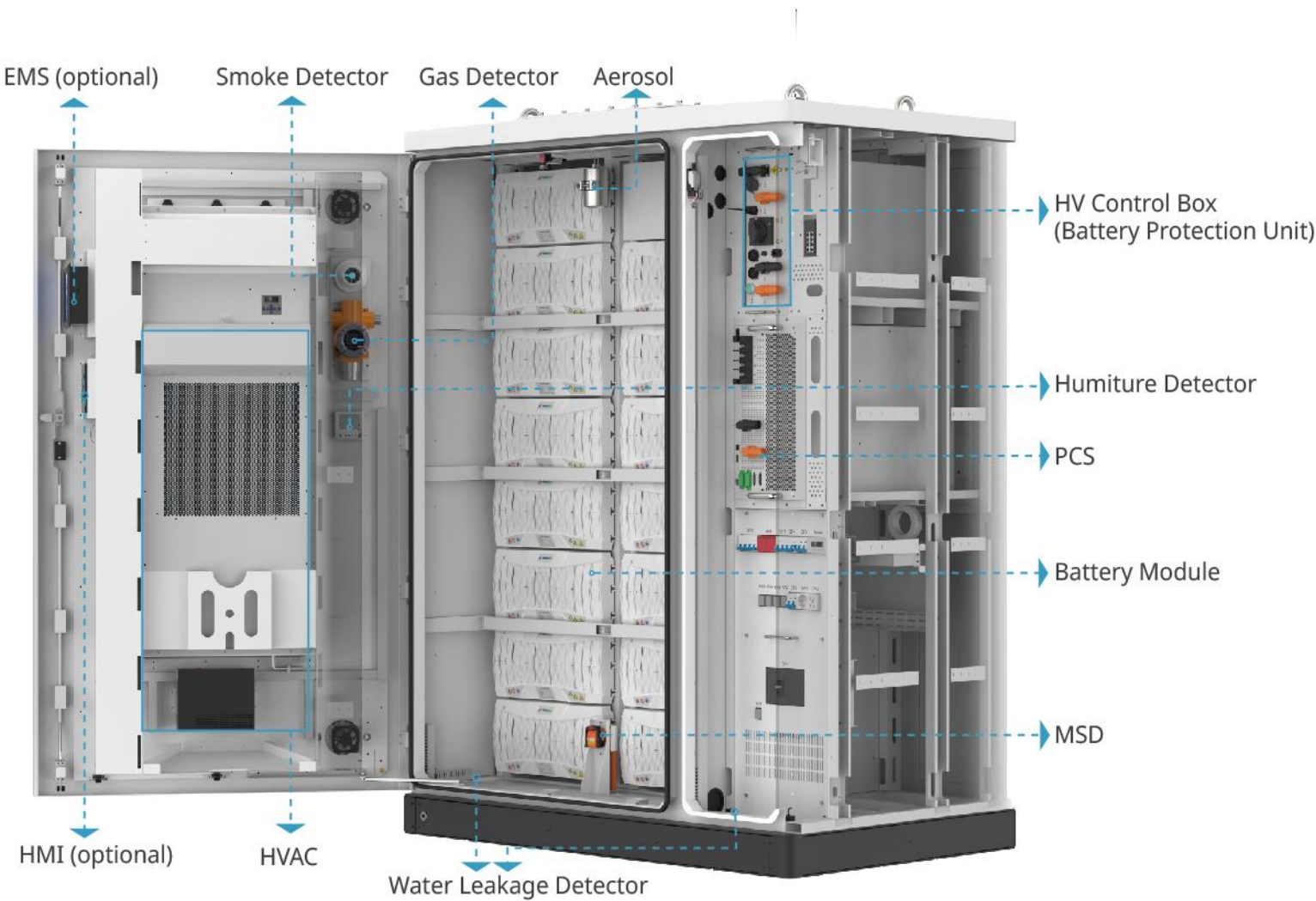
Unit: mm

FLEX 241 AIO*

All-in-one Air Cooling Outdoor Cabinet BESS

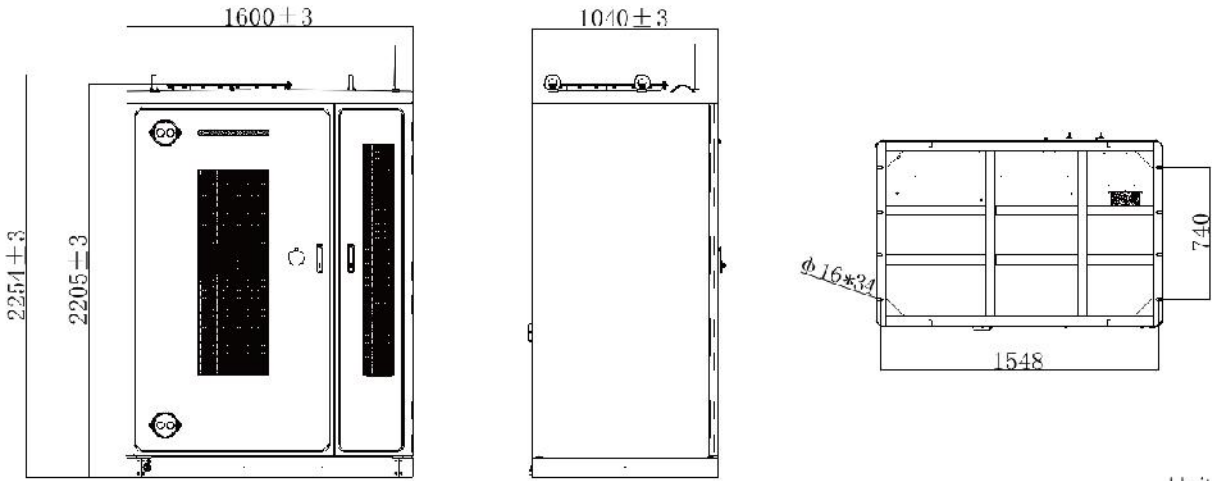


- Easy Scalability**
Up to MWh-level capacity
- Active Balancing BMS**
Maximizes usable capacity & Extends battery life
- Highly Integrated**
All-in-one design integrated with battery and PCS



PARAMETERS

FLEX 241 AIO ESS PARAMETERS		
AC Parameters	Rated Power	105 kW
	Maximum Power	115.5 kW
	Grid Type	3P+N+PE
	Rated Grid Voltage	400 V
	Grid Frequency	50 / 60 Hz
	EMC & Safety Standards	IEC/EN 62477, EN/IEC 61000
	Grid Connection Standards	EN 50549-1/-2, G99, VDE 4105, NRS 097, C10/11, NTS 631,VDE 4110
DC Parameters	Rated Voltage	768 V
	Voltage Range	672 ~ 864 V
	Rated Energy	241.152 kWh
	Battery Cell	LFP 314 Ah
Other Parameters	Degree of Protection	IP 55
	Operation Temperature	-30 ~ 55 °C (>45°C derating)
	Storage Temperature	-40 ~ 60 °C
	Altitude	2000 m (>2000m derating)
	Relative Humidity	5 ~ 95% (No Condensing)
	Cooling Method	Air Cooling
	Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Humiture Detector
	Communication	MODBUS
	Dimensions (W x D x H)	1600 × 1040 × 2254 mm (±3mm)
	Weight	2600 kg

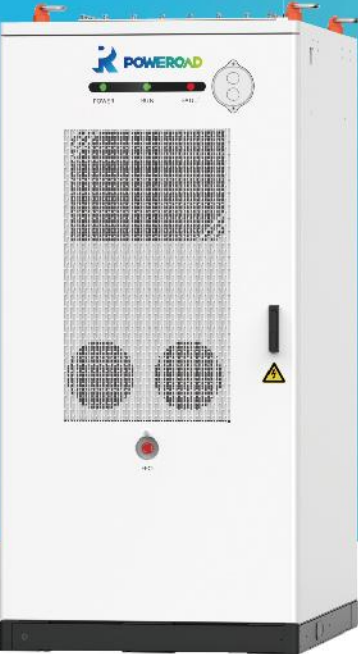


Unit: mm

*AIO: The battery and PCS are integrated in an all-in-one system.

FLEX 261

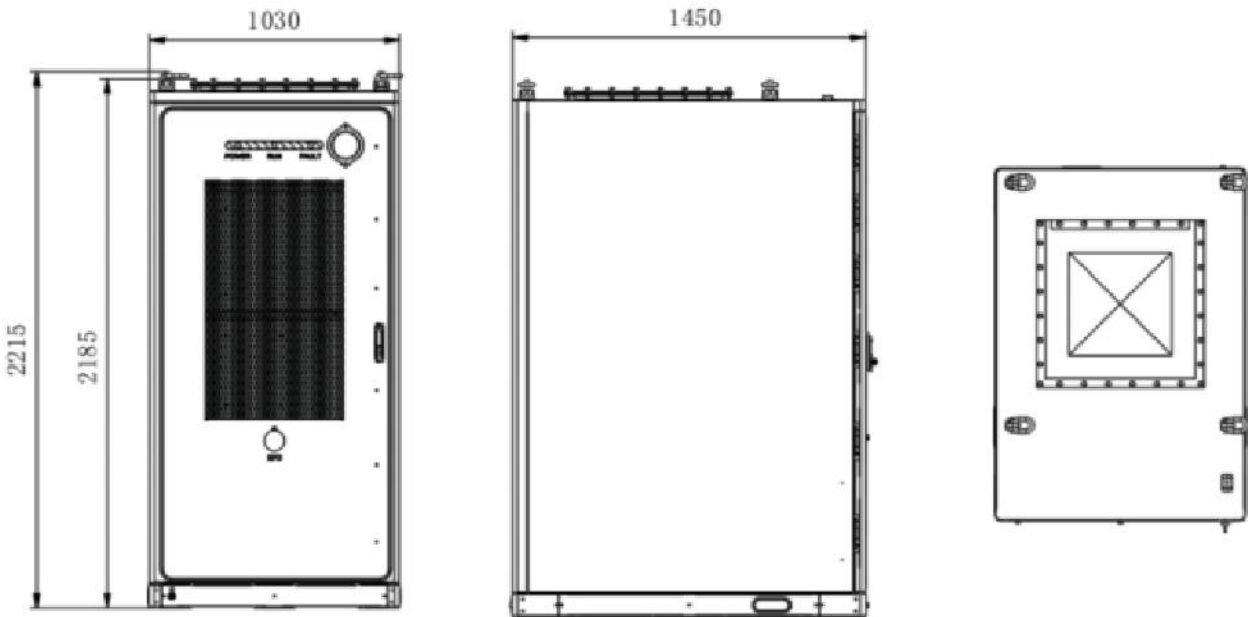
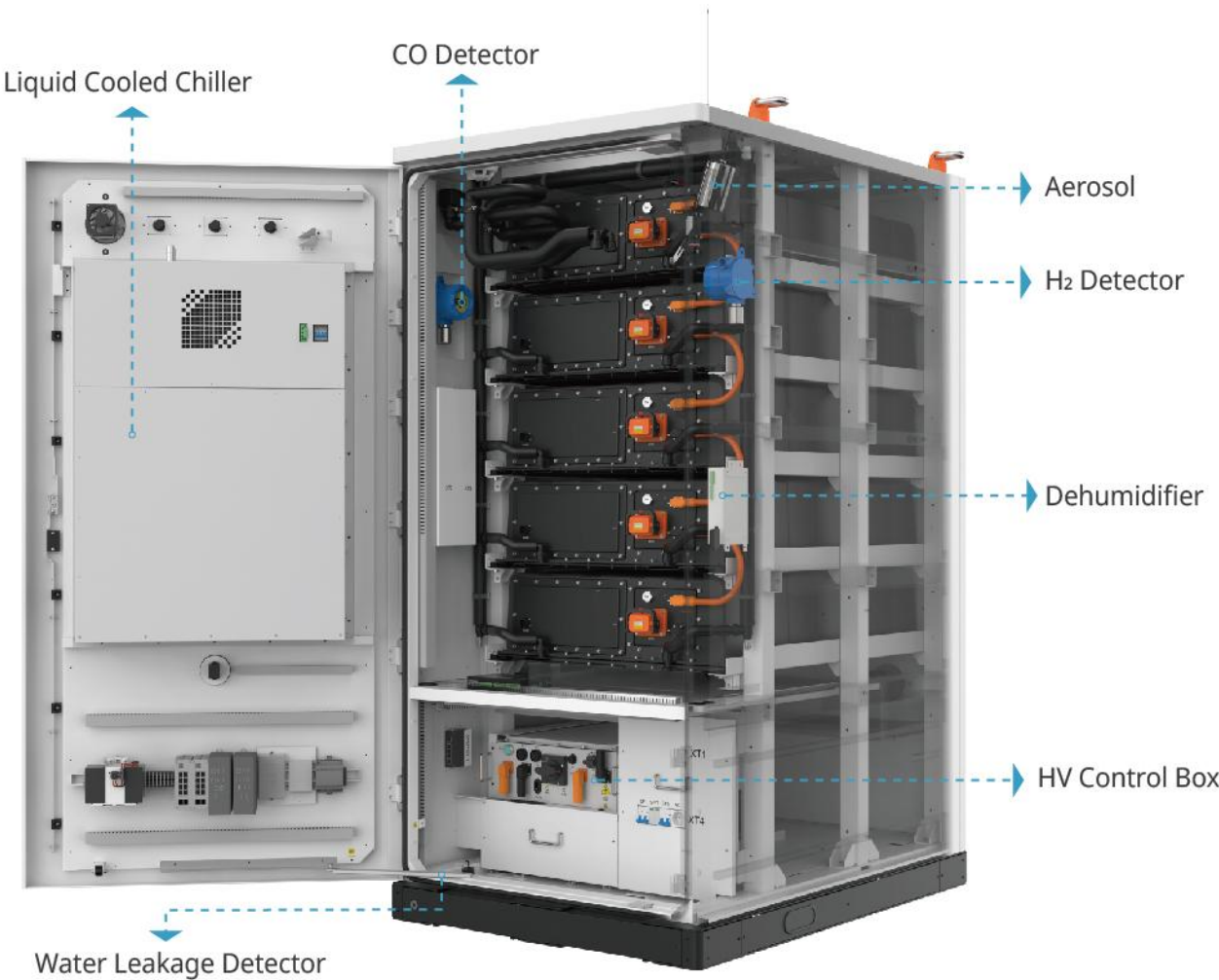
Liquid Cooling Outdoor Cabinet ESS



- Industry-leading Active Balancing BMS**
Maximizes usable capacity & Extends battery life
- 30°C to 55°C Operation Temperature**
Can be installed in harsh conditions (extreme heat/cold)
- Suitable for Small-size C&I Scenarios**

PARAMETERS

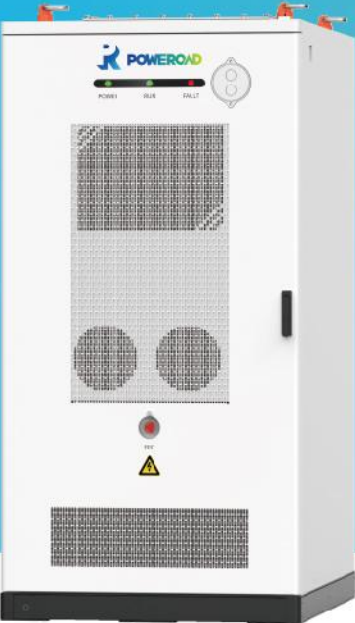
FLEX 261 ESS PARAMETERS		
DC Parameters	Rated Voltage	832 V
	Voltage Range	728 ~ 936 V
	Rated Energy	261.245 kWh
	Charge / Discharge Rate	0.5P / 0.5P
	Battery Cell	LFP 314 Ah
Other Parameters	Degree of Protection	IP 55
	Operation Temperature	-30 ~ 55 °C (>45°C derating)
	Storage Temperature	-30 ~ 60 °C
	Altitude	2000 m (> 2000m derating)
	Relative Humidity	5 ~ 95% (No condensing)
	Cooling Method	Liquid cooling
	Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Humiture Detector
	Communication	MODBUS
	Dimensions (W×D×H)	1030 × 1450 × 2215 mm (±3mm)
	Weight	2456 kg
	Standards	EN IEC 61000, EN 62477, IEC 62477, IEC 62619, UN38.3



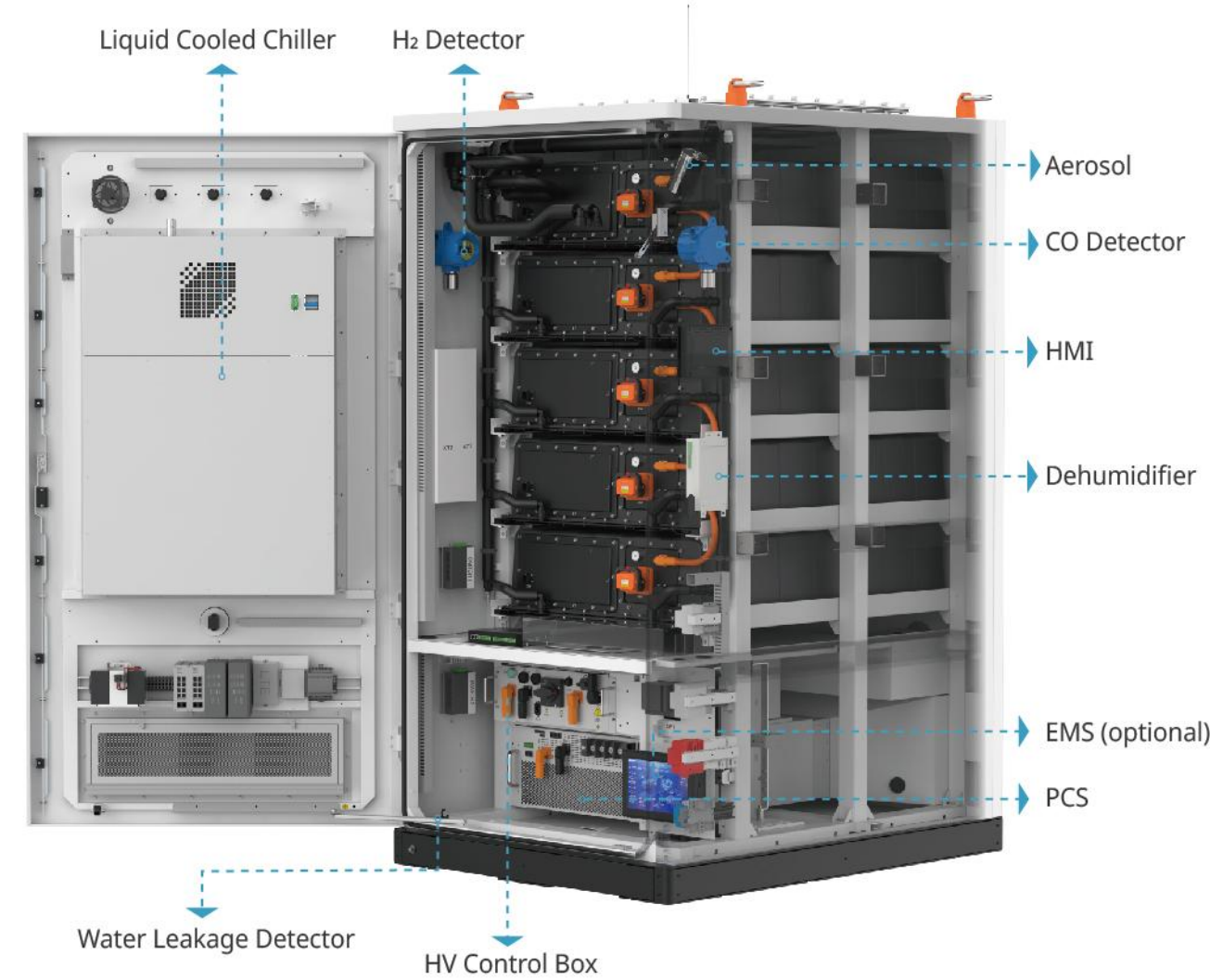
Unit: mm

FLEX 261 AIO*

All-in-one Liquid Cooling Outdoor Cabinet ESS

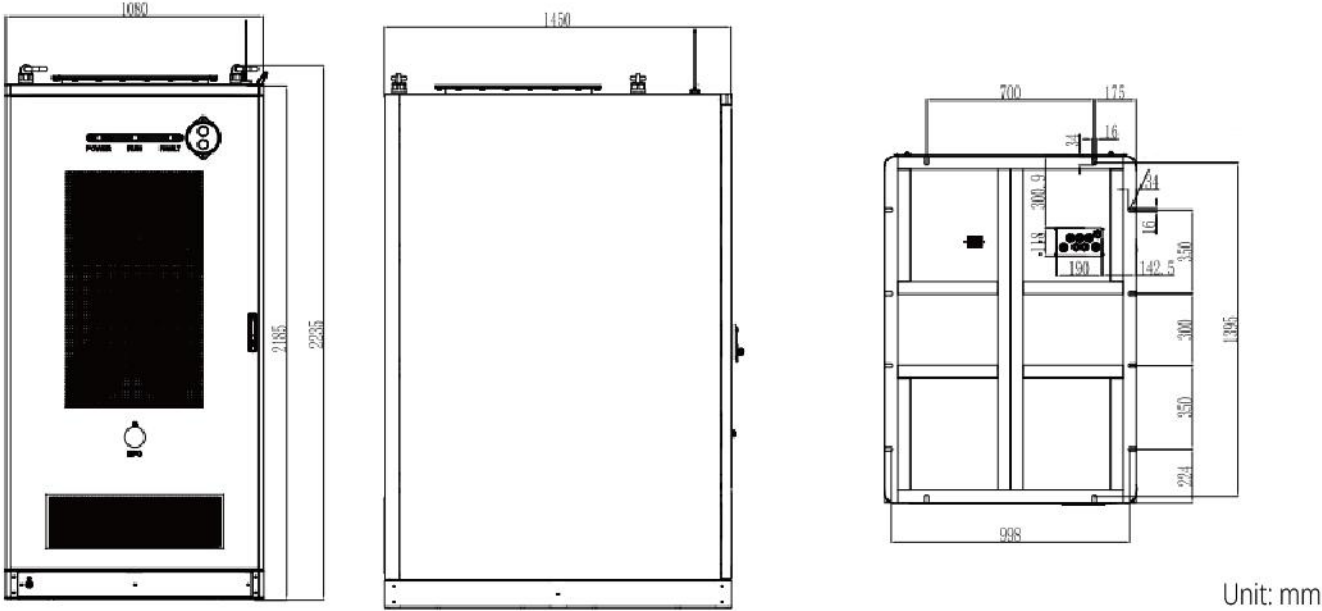


- Industry-leading Active Balancing BMS**
Maximizes usable capacity & Extends battery life
- 30°C to 55°C Operation Temperature**
Can be installed in harsh conditions (extreme heat/cold)
- High Energy Density**
15% higher system-level volumetric energy density with a more compact footprint



PARAMETERS

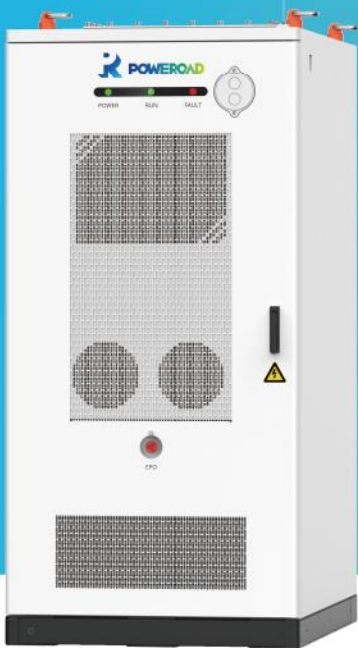
FLEX 261 AIO ESS PARAMETERS		
AC Parameters	Rated Power	125 kW
	Maximum Power	137.5 kW
	Grid Type	3P+N+PE
	Rated Grid Voltage	400 V
	Grid Frequency	50 / 60 Hz
	EMC & Safety Standards	IEC/EN 62477, EN/IEC 61000
	Grid Connection Standards	EN 50549-1/-2, G99, VDE 4105, NRS 097, C10/11, VDE 4110, AS4777, CEI 0-16, CEI 0-21
DC Parameters	Rated Voltage	832 V
	Voltage Range	728 ~ 936 V
	Rated Energy	261.245 kWh
	Battery Cell	LFP 314 Ah
Other Parameters	Degree of Protection	IP 55
	Operation Temperature	-30 ~ 55 °C (>45°C derating)
	Storage Temperature	-30 ~ 60 °C
	Altitude	2000 m (> 2000m derating)
	Relative Humidity	5 ~ 95% (No Condensing)
	Cooling Method	Liquid Cooling
	Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Humiture Detector
	Communication	MODBUS
	Dimensions (W × D × H)	1080 × 1450 × 2235 mm (±3mm)
	Weight	2550 kg



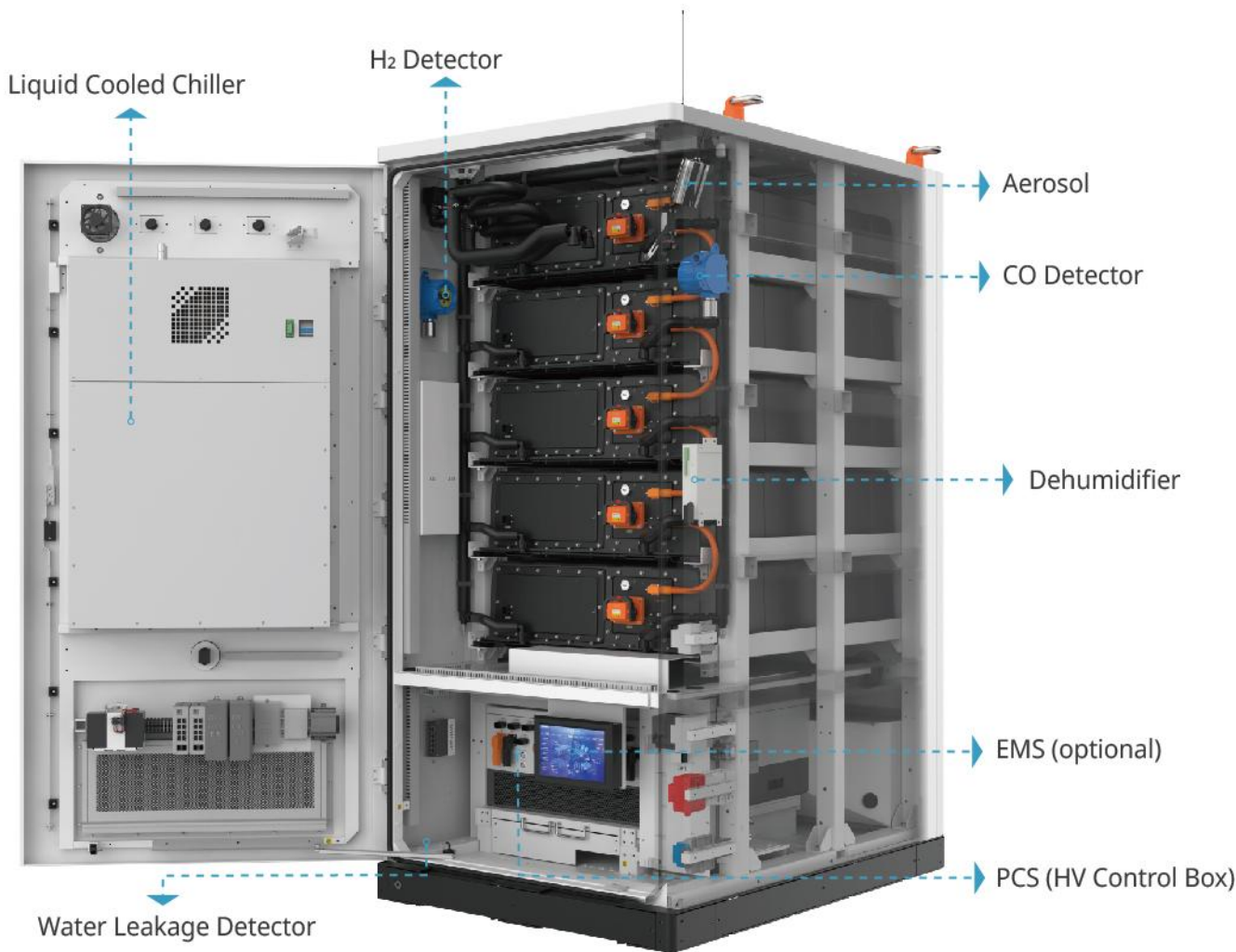
*AIO: The battery and PCS are integrated in an all-in-one system.

FLEX 261 AIO-3S*

All-in-one Liquid Cooling Outdoor Cabinet ESS

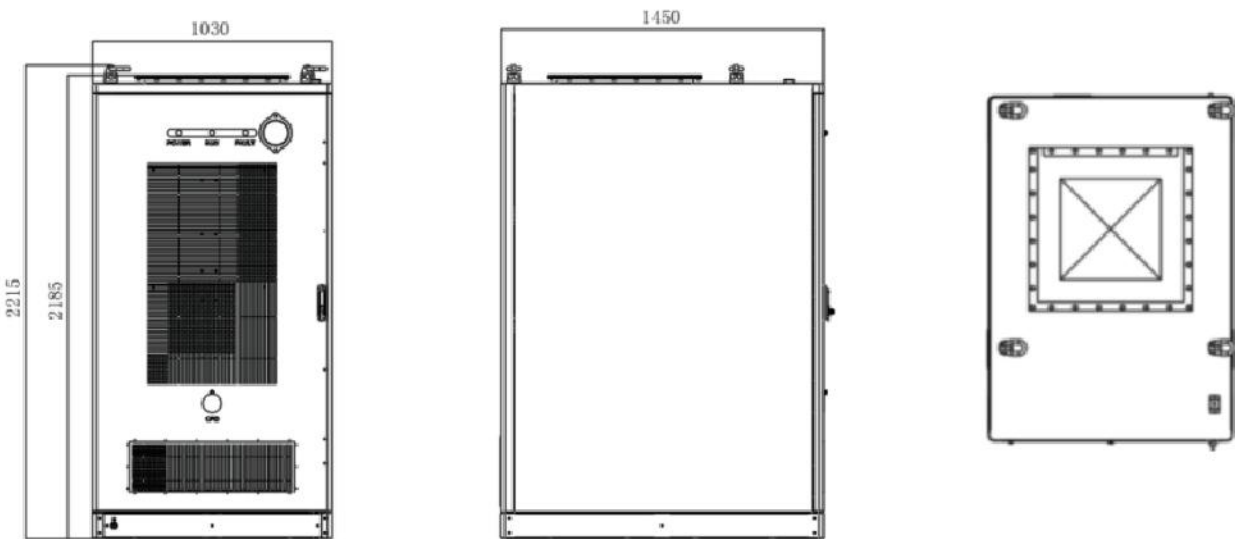


- Industry-leading Active Balancing BMS**
Maximizes usable capacity & Extends battery life
- 30°C to 55°C Operation Temperature**
Can be installed in harsh conditions (extreme heat/cold)
- Highly Integrated**
Integrates high-voltage box (BMS inside) and PMS in one PCS module



PARAMETERS

FLEX 261 AIO-3S ESS PARAMETERS		
AC Parameters	Rated Power	130 kW
	Maximum Power	143 kW
	Grid Type	3P+N+PE
	Rated Grid Voltage	400 V
	Grid Frequency	50 / 60 Hz
	EMC & Safety Standards	EN IEC 61000, EN 62477, IEC 62477, IEC 62619, IEC 62933, IEC 63056
	Grid Connection Standards	EN 50549-1/-2, G99, VDE 4105, VDE 4110, C10/11
DC Parameters	Rated Voltage	832 V
	Voltage Range	728 ~ 936 V
	Rated Energy	261.245 kWh
	Battery Cell	LFP 314 Ah
Other Parameters	Degree of Protection	IP 55
	Operation Temperature	-30 ~ 55 °C (>45°C derating)
	Storage Temperature	-30 ~ 60 °C
	Altitude	2000 m (> 2000m derating)
	Relative Humidity	5 ~ 95% (No Condensing)
	Cooling Method	Liquid Cooling
	Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Humiture Detector
	Communication	MODBUS
	Dimensions (W × D × H)	1030 × 1450 × 2215 mm (±3mm)
	Weight	2550 kg



Unit: mm

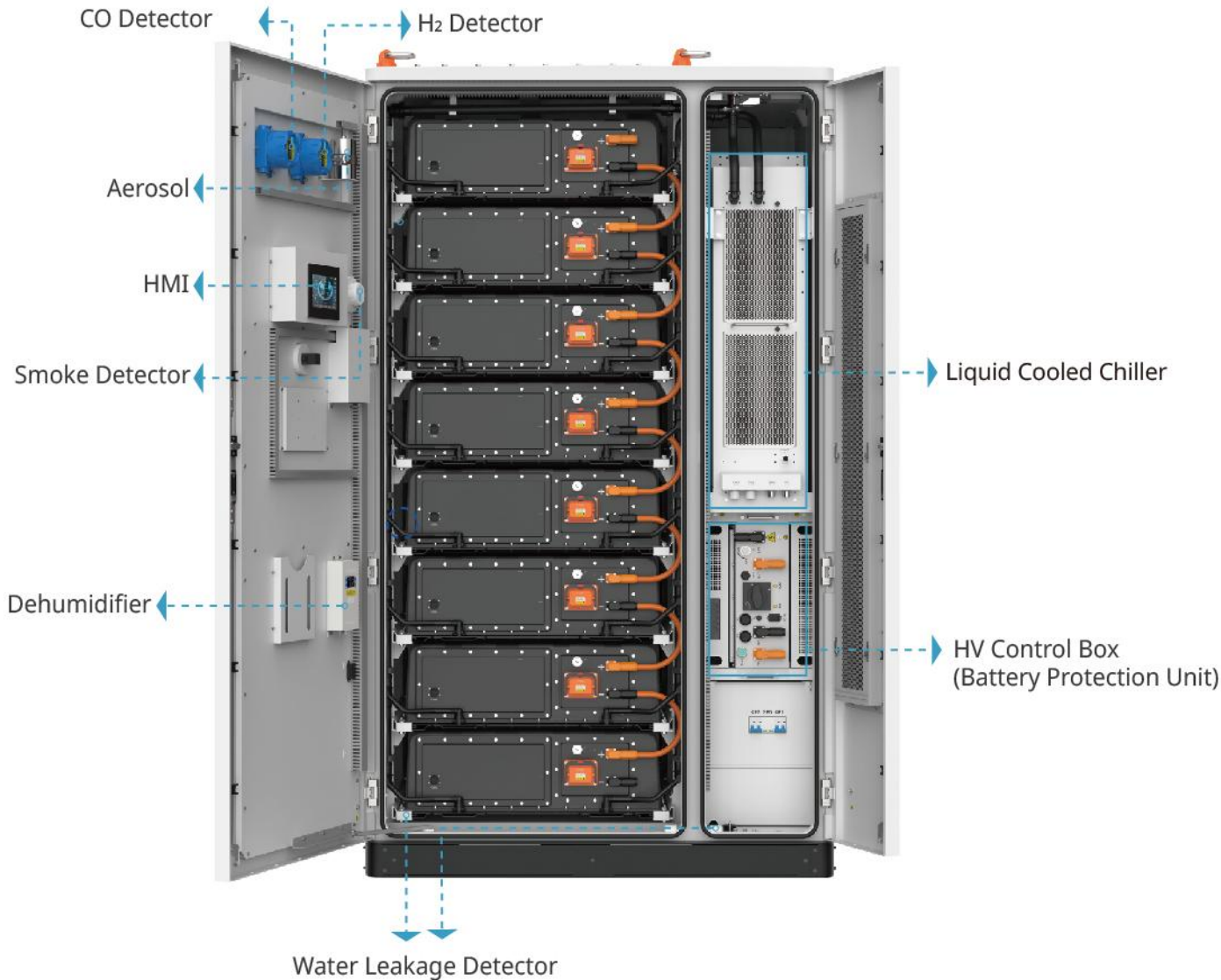
* AIO-3S: Integrates high-voltage box (BMS inside) and PMS in one PCS module (both hardware and software)

FLEX 418

Liquid Cooling Outdoor Cabinet ESS

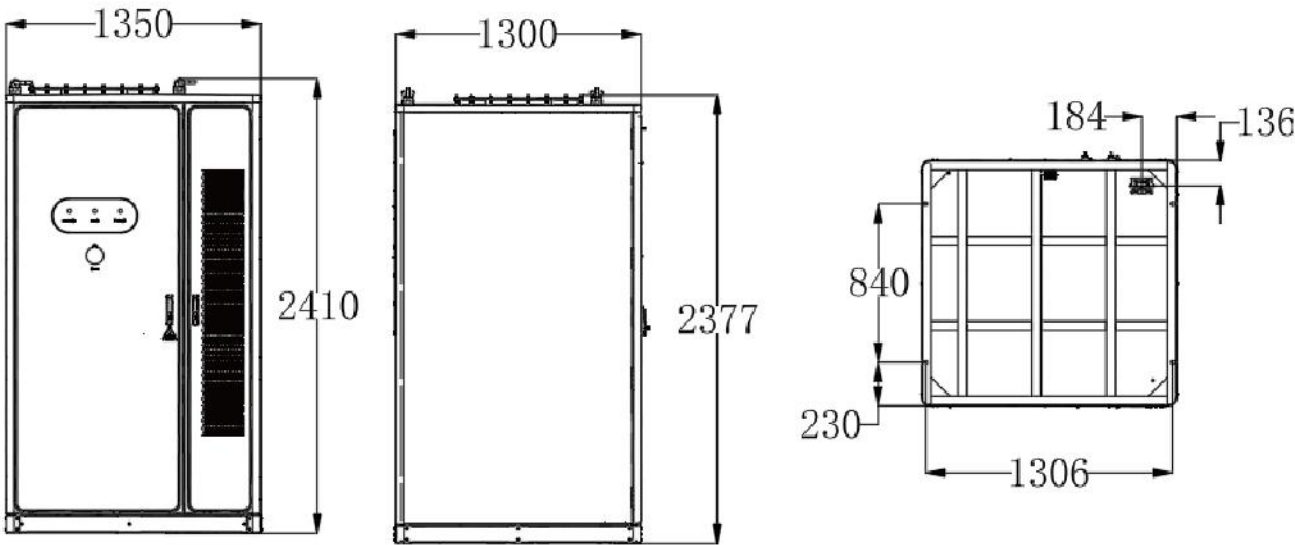


- Industry-leading Active Balancing BMS**
Maximizes usable capacity & Extends battery life
- 30°C to 55°C Operation Temperature**
Can be installed in harsh conditions (extreme heat/cold)
- High Energy Density**
1.75 m³ Compact footprint with more capacity



PARAMETERS

FLEX-418 ESS PARAMETERS		
DC Parameters	Rated Voltage	1331.2 V
	Voltage Range	1164.8 ~ 1497.6 V
	Rated Energy	417.992 kWh
	Charge / Discharge Rate	0.5P / 0.5P
	Battery Cell	LFP 314 Ah
Other Parameters	Degree of Protection	IP 55
	Operation Temperature	-30 ~ 55 °C (>45°C derating)
	Storage Temperature	-30 ~ 60 °C
	Altitude	2000 m (> 2000m derating)
	Relative Humidity	5 ~ 95% (No Condensing)
	Cooling Method	Liquid Cooling
	Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Humiture Detector
	Communication	MODBUS
	Dimensions (W×D×H)	1350 × 1300 × 2410 mm (±3mm)
	Weight	3650 kg
	Standards	EN IEC 61000, EN 62477, IEC 62477, IEC 62619, UN38.3



Unit: mm

C&I Indoor Air Cooling Battery

241 kWh Series

 Maximize ROI

- Next-gen 314Ah LFP cells with industry-leading 8000 cycles
- Cabinet-free rack design significantly reduces initial CapEx
- Active Balancing BMS maximizes usable capacity and extends system lifespan
- Black-start capability ensures reliable backup and energy security

 Ultimate Safety & Reliability

- Performs reliably in harsh climates: Working temperature up to 60°C
- Open-rack architecture ensures excellent natural heat dissipation

 Minimalist & User-friendly Design

- Modular and scalable to grow with your needs
- Fully front-accessible design for hassle-free maintenance

 Universal PCS Compatibility

- Seamlessly integrates with mainstream PCS brands
- Adaptable for versatile applications including microgrids, on/off-grid, and peak-shaving



FRAME 241

RACK 241

PARAMETERS

Battery Model	FRAME-241	RACK-241
Battery Chemistry	LFP	
Nominal Voltage	768 VDC	
Max. Rated Capacity	64.307 ~ 241.152 kWh	128.614 ~ 241.152 kWh
Operating Voltage Range	672 V ~ 864 V	
Dimensions (W × D × H)	2150 × 680 × 1085 mm	960 × 790 × 1865 mm
Net Weight (unboxed)	1750 kg	1700 kg
Standard Charge / Discharge Current	157 A	
Max. Charge / Discharge Current	200 A	
Operating Temperature	5 ~ 45°C	
Storage Temperature	-20 ~ 45°C	
Relative Humidity	5 ~ 85% (non-condensing)	
Cooling Method	Air Cooling	
Installation Location	Indoor	
IP Rating	IP 20	
Altitude	≤ 2000 m	



CENTRIC-L 20-3344 AIO *

All-in-one Liquid Cooling Containerized ESS

- One Cluster One PCS**
Independent battery clusters with dedicated 200kW PCS, eliminating single points of failure and improving project uptime
- Intelligent Liquid Cooling**
Liquid cooling system ensures temperature difference $\leq 3^{\circ}\text{C}$
- Active Balancing BMS**
Maximizes usable capacity and extends battery life&performance
- 800 V AC Coupling**
Direct 800 V connection minimizes energy conversion losses
- 30°C to 55°C Operation Temperature**
Can be installed in harsh conditions (extreme heat/cold)



*AIO: All-in-one design integrates Battery & PCS

800V AC All-in-One
Liquid-Cooled Containerized BESS

PARAMETERS

Model	1000 kW / 2090 kWh	1200 kW / 2508 kWh	1400 kW / 2926 kWh	1600 kW / 3344 kWh
DC Parameters				
Battery Cell	LFP 3.2 V / 314 Ah			
Nominal Capacity	2090 kWh	2508 kWh	2926 kWh	3344 kWh
Voltage Range	1164.8 ~ 1496.7 V			
AC Parameters				
Nominal AC Power	1000 kW	1200 kW	1400 kW	1600 kW
AC Current Distortion Rate	< 3%			
Nominal AC Voltage	800 V			
AC Voltage Range	704 ~ 880 V			
Power Factor	-1.0 ~ 1.0			
Nominal Frequency	50 / 60 Hz			
Standard	VDE 4110&4120, NTS2.1, UNE 217001, UNE217002, IEEE1547, EN 50549-2			
Other Parameters				
Dimension (W × D × H)	6058 × 2438 × 2896 mm (±5mm)			
Weight (ARO)	24000 kg	27000 kg	29500 kg	32000 kg
Protection Level	IP 55			
Anti-corrosion Level	C4 / C5 (optional)			
Operation Temperature	-30 ~ 55 °C (>45°C derating)			
Storage Temperature	-30 ~ 60 °C			
Attitude	2000 m (> 2000m derating)			
Cooling Method	Liquid cooling			
Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Humiture Detector			
Communication	MODBUS			
Standards	CE-EMC, CE-LVD, IEC 62619, UN38.3			



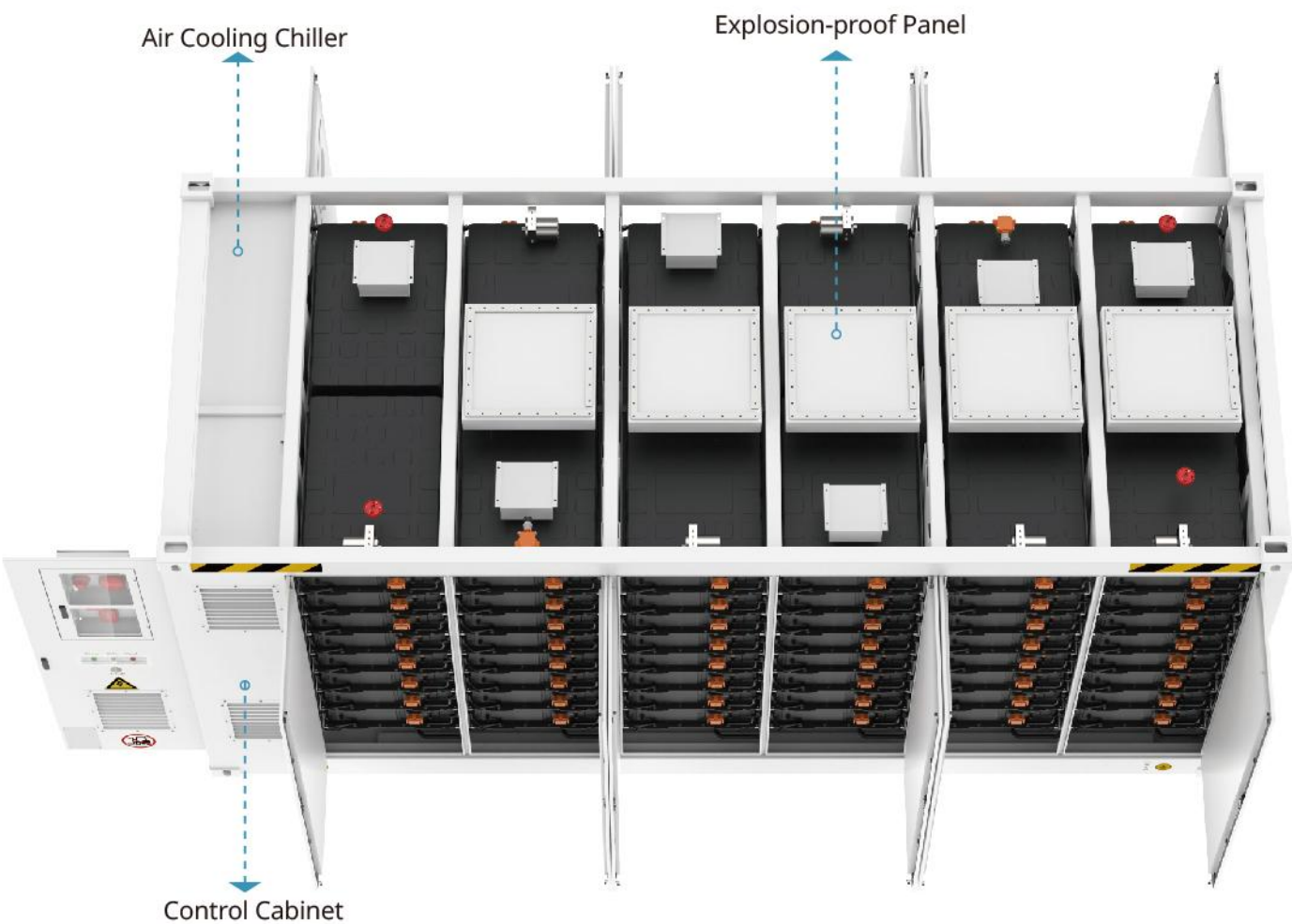
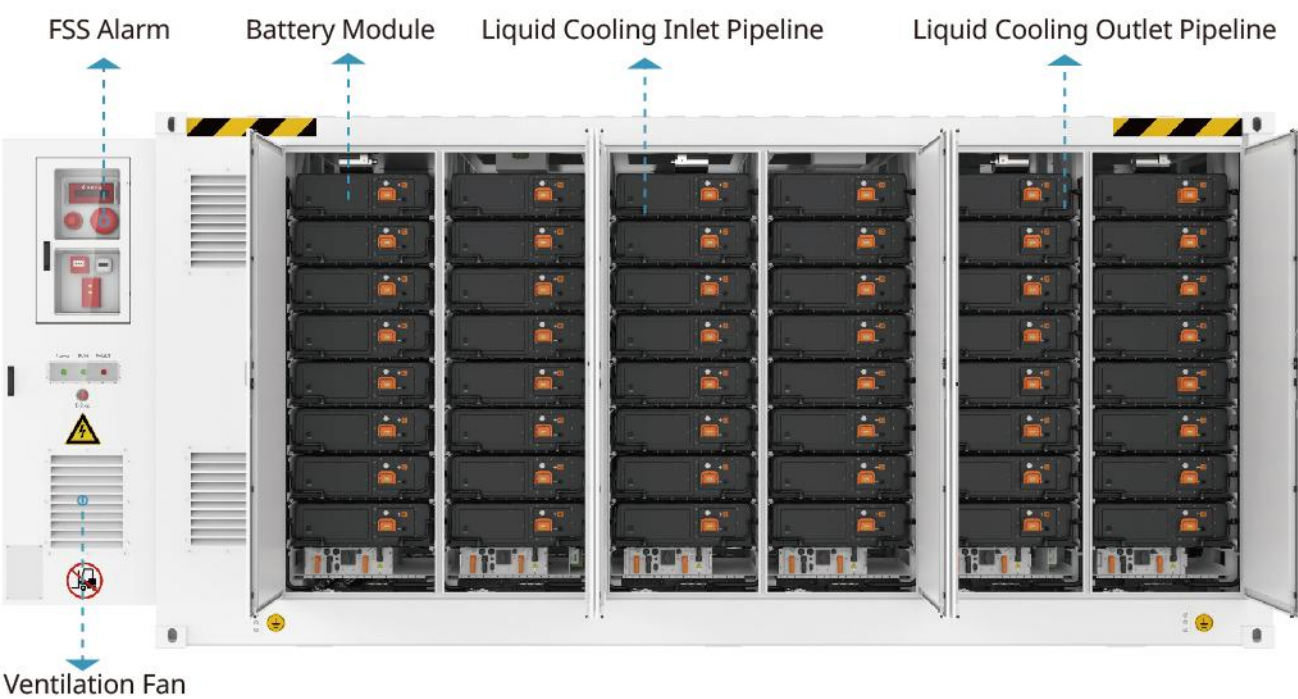
CENTRIC-L 20-5015

Liquid Cooling Containerized ESS

- High Energy Density**
Higher capacity packed into the standard 20ft container
- Intelligent Liquid-cooling**
Liquid cooling system ensures temperature difference $\leq 3^{\circ}\text{C}$
- 30°C to 55°C Operation Temperature**
Can be installed in harsh conditions (extreme heat/cold)



LAYOUT



PARAMETERS

CENTRIC-L 20-5015 ESS PARAMETERS		
DC Parameters	Battery Cell	LFP 314 Ah
	Rated Energy	5.015 MWh
	Rated Voltage	1331.2 V
	Voltage Range	1164.8 ~ 1497.6V
	Charge / Discharge Rate	0.5 P / 0.5 P
Other Parameters	Degree of Protection	IP 55
	Operation Temperature	-30 ~ 55 °C (> 50 °C derating)
	Storage Temperature	-30 ~ 60 °C
	Altitude	2000 m (> 2000m derating)
	Relative Humidity	5 ~ 95% (No condensing)
	Cooling Method	Liquid cooling
	Communication	MODBUS
	Fire Suppression System	Smoke & Gas Detectors, Aerosol, Vent Valve, Explosion Relief Panel, Water Sprinkler, Humiture Detector
	Dimensions (W × D × H)	6058 × 2438 × 2896 mm (±5mm)
	Weight	43000 kg
	Standards	CE-EMC, CE-LVD, IEC 62619, UN38.3



Hybrid Inverter 25–50kW

PARAMETERS



Model	25K	29.9K	30K	40K	50K
PV Input					
Max. Input Voltage	1000 V				
Rated Voltage	620 V				
Start-up Voltage	210 V				
MPPT Voltage Range	200 ~ 950V				
Max. Input Current	4 × 40 A				
MPPT Number / Max. Input Strings Number	4 / 8				
Battery Side					
Battery Type	Li-ion				
Battery Voltage Range	150 ~ 840 V				
Max. Charge / Discharge Current	150 A				
Back-up Side/Off-grid					
Rated Output Power	25.0 kW	29.9 kW	30.0 kW	40.0 kW	50.0 kW
Back-up Switch Time	< 10ms				
Rated Output Voltage	3L/N/PE, 220/380V; 230/400V				
Rated Frequency	50 / 60 Hz				
Grid Side/On-grid					
Rated Output Power	25.0 kW	29.9 kW	30.0 kW	40.0 kW	50.0 kW
Rated Grid Voltage	3L/N/PE, 220/380V; 230/400V				
Rated Grid Frequency	50 / 60 Hz				
Generator Side					
Max. Input Power	25.0 kW	29.9 kW	30.0 kW	40.0 kW	50.0 kW
Rated Input Voltage	3L/N/PE, 220/380V; 230/400V				
Efficiency					
Max. Efficiency	97.8%				
European Efficiency	97.4%				
Protection					
Integrated Protection	DC reverse polarity protection, Battery input reverse connection protection, Insulation resistance protection, Surge protection (DC Type II / AC Type II), Over-temperature protection, Residual current protection, Islanding protection, AC over-voltage protection, Overload protection, AC short-circuit protection				
General Data					
Dimensions (W × H × D)	919 × 739 × 305 mm				
Weight	89 kg				
Topology	Transformerless				
Relative Humidity	0 ~ 100%				
Ingress Protection	IP66				
Max. Operation Altitude	3000 m				

* PV Max. input voltage is 950V, otherwise inverter will be waiting;



Hybrid Inverter 75–125kW

PARAMETERS



Model	75K	80K	99.9K	100K	125K
PV Input					
Max. Input Voltage	1000 V				
Rated Voltage	620 V				
Start-up Voltage	210 V				
MPPT Voltage Range	150 ~ 950 V				
Max. Input Current	10 × 42 A				
MPPT Number / Max. Input Strings Number	10 / 20				
Battery Side					
Battery Type	Li-ion				
Battery Voltage Range	300 ~ 950 V				
Max. Charge / Discharge Current	100 A				
Back-up Side/Off-grid					
Rated Output Power	75 kW	80 kW	99.9 kW	100 kW	125 kW
Back-up Switch Time	< 10ms				
Rated Output Voltage	3L/N/PE, 220/380V; 230/400V				
Rated Frequency	50 / 60 Hz				
Grid Side/On-grid					
Rated Output Power	75 kW	80 kW	99.9 kW	100 kW	125 kW
Rated Grid Voltage	3L/N/PE, 220/380V; 230/400V				
Rated Grid Frequency	50 / 60 Hz				
Generator Side					
Max. Input Power	75 kW	80 kW	99.9 kW	100 kW	125 kW
Rated Input Voltage	3L/N/PE, 220/380V; 230/400V				
Efficiency					
Max. Efficiency	97.6%				
European Efficiency	97.2%				
Protection					
Integrated Protection	Anti-islanding protection / Output over current protection / Short circuit protection / Integrated DC switch / DC reverse-polarity protection / Protection class / Over voltage category (I/ DC II, AC III) / Surge protection (DC Type II / AC Type II) / Integrated AFCI 2.0 (Optional)				
General Data					
Dimensions (W × H × D)	1174 × 814 × 400 mm				
Weight	170 kg				
Topology	Transformerless				
Relative Humidity	0 ~ 100%				
Ingress Protection	IP66				
Max. Operation Altitude	3000 m				

STS 400K ~ 2000K

AC Distribution Cabinet



STS series of switching devices can realize the fast switching of parallel and off-grid status within 20ms. Under normal operating conditions, the static switch is closed; In the event of a utility interruption, the static switch is immediately disconnected and the energy storage system switches to off-grid operation mode, where the battery discharges to provide power to critical loads and ensures that the power from the storage system is not reversed to the grid.



Fast Transfer Architecture

- Designed for transfer times as low as 20 ms.
- Supports automatic source transfer without manual intervention.



Advanced Microgrid Control

- Planned support for EMS and generator coordination.
- Designed for synchronization and microgrid control applications.



Flexible System Integration

- Designed to support both Poweroad and third-party PCS.
- Configurable communication interfaces for diverse applications.



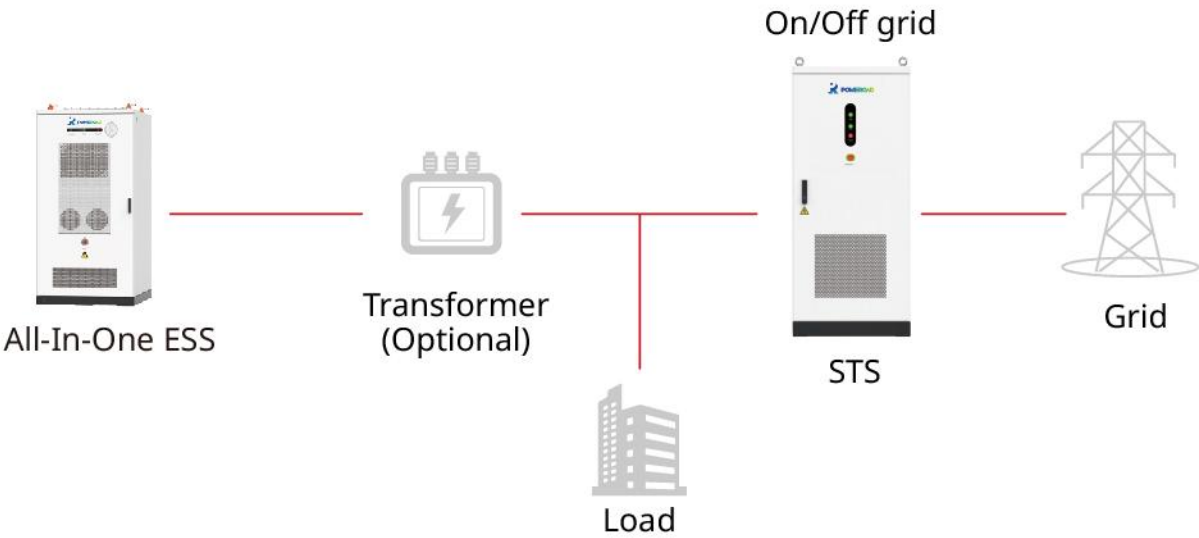
Scalable Outdoor Platform

- Planned power range from 250 kW to 2 MW.
- Designed for outdoor installation and harsh environments.

PARAMETERS

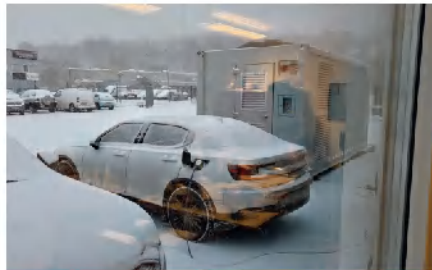
Model	400K	800K	1250K	2000K
Rated Power	400 kW	800 kW	1.25 MW	2 MW
Actual Output Power	436 kW	873 kW	1386 kW	2217 kW
Rated voltage	400 Vac / 480 Vac / 690 Vac, compatible with three-phase four-wire systems (non-isolated topology)			
Max. grid port current	630 A	1260 A	2000 A	3200 A
Rated frequency	50 / 60 Hz			
On/off-grid switching time	≤ 20ms			
Communication interface	RS485, CAN, Ethernet			
Altitude	≤2000 m			
Operating temperature	-30 ~ 55°C (derated operation up to 60°C)			
Humidity	5 ~ 95% RH, non-condensing			
IP rating	IP55			
Corrosion Protection Class	C4 (C5 optional)			
Supported Power Sources	Grid, ESS, PV, and Diesel Generator			

Typical Application



1000+ Installed C&I ESS For Full-Scenarios

E-Mobility & Logistics



EV Charging Station, Sweden
Capacity: 500kW / 504kWh Application: Demand Response



Logistic Fleet Charging Station, Netherlands
Capacity: 1.5MW / 3.2MWh Application: Solar Self-consumption, Balancing Services



Hotel, Belgium
Capacity: 250kW / 430kWh Application: Demand Response



PV Panel Factory, Lithuania
Capacity: 1000kW / 2580kWh Application: Solar self-consumption, Peak Shaving



Equipment Rental Company, Norway
Capacity: 500kW / 1075kWh Application: Peak Shaving, Balancing Services



EV Charging Station, Sweden
Capacity: 500kW / 1075kWh Application: Balancing Services

Industrial & Manufacturing



Chocolate Factory, Belgium
Capacity: 350kW / 748kWh Application: Backup Power



Electrical Equipment Factory, Mexico
Capacity: 187.5kW / 648kWh Application: Solar Self-consumption



Engine Lubricant Factory, Vietnam
Capacity: 100kW / 215kWh Application: Solar Self-consumption



Glass Factory, Netherlands
Capacity: 500kW / 1000kWh Application: Solar Self-consumption



Steel Processing Factory, Sweden
Capacity: 500kW / 860kWh Application: Frequency Regulation



PV Power Station, Czech
Capacity: 7MW / 12.47MWh Application: Solar Self-consumption

Agriculture



Pig Farm, Netherlands
Capacity: 1.5MW / 3MWh Application: Balancing Services



Quinoa Farm, Belgium
Capacity: 1.1MW / 2.3MWh Application: Solar Self-consumption, Balancing Services



Chicken Farm, Belgium
Capacity: 300kW / 645kWh Application: Solar self-consumption, Balancing Services



Livestock Farm, Netherlands
Capacity: 62.5kW / 215kWh Application: Solar self-consumption, Balancing Service



Dairy Farm, New Zealand
Capacity: 60kW / 122.88kWh Application: Off-grid, Solar Self-consumption



Chicken Farm, Belgium
Capacity: 250kW / 430kWh Application: Balancing Services

Commercial & Public



Stadium, Netherlands
Capacity: 2MW / 5.59MWh Application: Peak Shaving



Garden Center, Netherlands
Capacity: 1MW / 2.2MWh Application: Solar Self-consumption



Sweden
Capacity: 187.5kW / 430kWh Application: Frequency Regulation



Distribution Center, Germany
Capacity: 500kW / 1000kWh Application: Solar Self-consumption



Camping Equipment Warehouse, Netherlands
Capacity: 1MW / 2.15MWh Application: Solar Self-consumption



Shopping Mall, South Africa
Capacity: 375kW / 860kWh Application: Backup Power