

**SECURE POWER SUPPLY,
YOU CAN COUNT ON.**



ZEPPELIN® **CAT®**

ZEPELIN POWER SYSTEMS – ALL SERVICES FROM ONE SOURCE.

Zeppelin Power Systems is an official partner of Caterpillar for Cat branded engines and a leading supplier of propulsion and energy systems. The company belongs to the successful Zeppelin group of companies with around 10,000 employees. Zeppelin can now look back on more than 70 years of partnership with Caterpillar.

We deliver mobile and stationary diesel-powered generators for all branches of industry and public institutions as well as Emergency power systems for uninterruptible power supply.

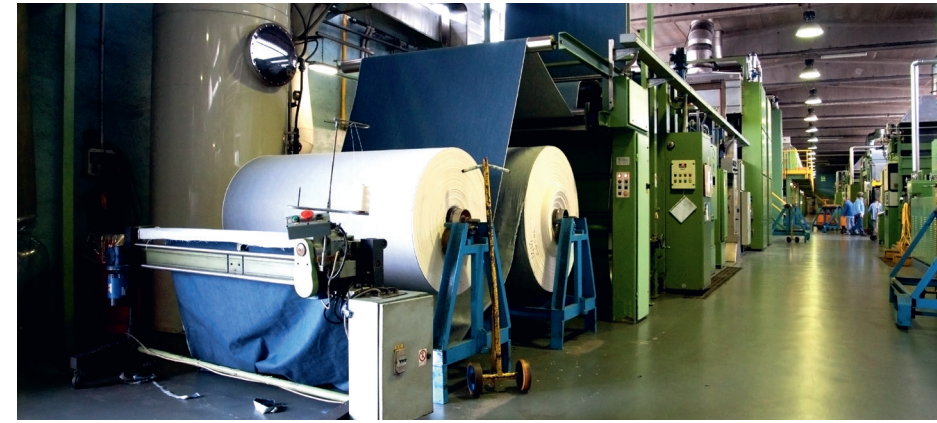
Our range of services includes project planning, implementation planning, Genset delivery, plant construction and all services including maintenance and repair work as well as deliveries of spare parts.



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**We deliver the appropriate solutions
for all industries, e.g.:**

- Data centers
- Industry
- OEM production
- Chemistry
- Pharma
- Hospital
- Steel
- Groceries
- Textile
- Telecommunications and media



Our services

POWERFUL SOLUTIONS FOR ALL INDUSTRIES.

YOU CAN COUNT ON US

From the real estate to public facilities, from the craft business, manufacturing industry and retail to agriculture, road construction or events - our generators supply electrical energy reliably around the clock.

Hospitals, data centers, shopping centers and various industrial companies require the highest level of power supply Security. Even in the event of power failures, smooth operation is essential to be guaranteed. No matter in which business areas and at which locations we ensure your energy supply.

Whether in a container or as a building installation – You can count on us.

EMISSION-OPTIMIZED POWER SUPPLY SYSTEMS

In a fast-changing environment, emission limits could be adjusted. We also provide retrofits for existing Generator Sets to keep compliance with local regulations. We construct according to EU regulations and fulfill all current and future applicable environmental regulations.

Where an uninterruptible power supply is particularly important, customers trust in our system solutions. In the event of a grid failure or malfunctions of your power distribution system, the diesel generator unit takes over.

EVERYTHING FROM ONE SOURCE ON REQUEST

As a full-service provider, we are able to plan data centers from the planning to realize up to the finished aggregate station. Our engineers advise and support you in your project from the start of planning to completion installation. We plan and realize your tailor-made solution – whether in a container or as a complete installation in buildings.

We also provide support for:

- Experts and consultants
- Preparation for building permits

24/7 – OUR SERVICE IS ALWAYS READY FOR YOU

In Sweden we offer a nationwide service. International is also available to you worldwide Zeppelin and Caterpillar dealer network available.



More equipment options upon request.

THE RIGHT SOLUTIONS FOR YOUR REQUIREMENTS.

1300–4000 KVA

The upper class includes the 3500 series and the C175. They are subject to constant development and are today worldwide leaders in their performance class.

EQUIPMENT OPTIONS

Housing

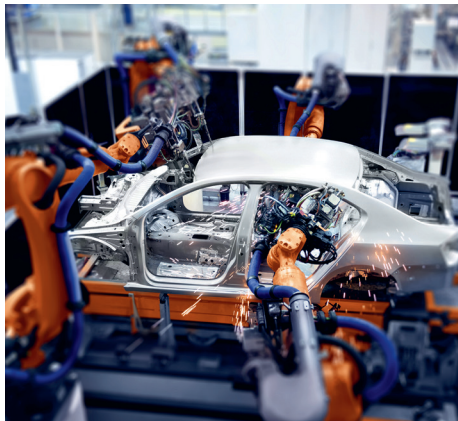
- Soundproof/weatherproof housing
- Container variants
- Various fuel tanks in the base frame, in single and double wall execution
- Base frame without tank for building installations
- Base frame with forklift pockets
- Various voltage and frequency options
- Central load hook
- Tank level sensor, automatic refueling system

Engine

- Electronic speed control
- Cooling water preheating
- Cooling system up to 50 °C outside temperature and low ambient packages
- Initial fill with Cat® Long Term Antifreeze
- Fuel filter with pre-filter/water separator
- Drain valves and pumps for fuel and lubrication systems
- Various air filter systems
- Exhaust aftertreatment as SCR (Selective Catalytic Reduction) or DPF

Voltage Options

- Various voltage and frequency options
- Voltage regulator with numerous protective functions
- Fully equipped, spacious control box, optimal for power connections
- communication and expansion modules
- Electronic control and governing system
- PMG or AREP exciter system for Consumers with increased starting current
- Various systems for remote monitoring
- Various alarm options
- Compact emergency power controls with integrated mains <-> generator switching
- Anti-condensation heater
- Battery charger
- Battery master switch
- Socket combination



MOBILE AND STATIONARY POWER GENERATORS.

DIESEL

50 Hz, 1000–7150 kVA, 1500 rpm						
kVA					Generator Set Model	Configuration
Standby	Mission Critical	Prime	Prime-DCP	Contin.		
1500 rpm						
1250	1250	1150	1150	1000	3512	Low BSFC
1400	1400	1275	—	—	C32	Low BSFC
1400	1400	1275	1275	1206	3512	Low BSFC
1500	1500	1375	—	—	C32	Low BSFC
1500	1500	1360	1360	—	3512B	Low BSFC, Low Emissions
1600	1600	1500	1500	1320	3512B	Low BSFC, Low Emissions
1625	1625	—	—	—	3512B	Low BSFC, Low Emissions
1750	1750	1600	1600	—	3512B	Low BSFC, Low Emissions
1875	1875	1700	1700	1500	3512B	Low BSFC, Low Emissions
2000	2000	1825	1825	1600	3516	Low BSFC
2250	2250	2045	2045	—	3516C	< 2000 mg NO _x , EPA Tier 2
2250	2250	2000	2000	1750	3516B	Low BSFC, Low Emissions
—	—	2000	—	1750	3516B DGB	Low BSFC
—	—	2275	—	2000	3516B DGB	Low BSFC
2500	2500	2275	2275	2000	3516B	Low BSFC, Low Emissions
2750	2750	2500	2500	—	3516C	< 2000 mg NO _x , EPA Tier 2
2750	2750	2500	2500	—	3516C	Low BSFC, Low Emissions
3000	3000	2725	2725	—	3516E	< 2000 mg NO _x , EPA Tier 2
3000	3000	2725	2725	2500	C175-16	Low BSFC
3000	3000	—	—	—	C175-16	Low Emissions
3000	3000	2750	2750	—	3516E	Low BSFC
3250	3250	2950	2950	—	3516E	< 2000 mg NO _x , EPA Tier 2
3500	3500	3175	3175	—	3516E	EPA Tier 2
3900	3900	3500	3500	3150	C175-20	Low BSFC
3900	3900	—	—	—	C175-20	Low Emissions
4000*	4000*	3600*	3600*	3250*	C175-20	Low BSFC
4000*	4000*	—	—	—	C175-20	Low Emissions



RENEWABLE HYBRID ENERGY SOLUTIONS.

MICROGRIDS & RENEWABLE ENERGY SYSTEMS

Cat microgrids provide cost-effective power for on- and off-grid communities and commercial or industrial installations. By combining our advanced energy storage solutions with renewable energy from photovoltaic solar modules and traditional generation from utilities or generator sets, we can develop an energy system specifically designed for your needs. The Cat microgrid combines all sources into a single, controllable entity to optimize the flow of energy so it can be produced at the lowest total cost.

POWER GRID STABILIZATION (PGS)

Power Grid Stabilization modules provide a pre-engineered solution to energy storage needs. The modules integrate with diesel or gas generator sets, photovoltaic (PV), or other renewable systems to provide short duration power. The module holds closely regulated system voltage and frequency during periods of rapid load addition or removal, or during periods of intermittent output from the renewables.

Model	Nameplate Energy	15 Minutes Output	5 Second Output
PGS840	448 kWh	840 kW	840 kW
PGS1260	672 kWh	1170 kW	1260 kW
PGS1260 HD mobile	672 kWh	1170 kW	1260 kW



ENERGY TIME SHIFT (ETS)

Energy Time Shift modules provide a pre-engineered solution to energy storage needs. The scalable system integrates with photovoltaic (PV) or other renewable systems to store energy from renewables, generator sets, or the grid for use at a later time. The ETS module contains the bi-directional power inverter with a fixed number of batteries and support equipment.

Model	Nameplate Energy	Continuous Output
ETS1500	1518 kWh	570 kW
ETS1500	1518 kWh	1000 kW*



* When paired with ECE below.

ENERGY CAPACITY EXPANSION (ECE)

The Energy Capacity Expansion modules provide increased energy capacity and discharge duration when connected for use with the ETS module.

Model	Energy
ECE1500	1518 kWh
ECE2000	2024 kWh
ECE2500	2530 kWh



CONTAINER SOLUTION

WHATEVER YOU NEED

- electric power generation
- combined heat and power (CHP)
- driving of pumps, compressors, ...

WHEREVER YOU NEED IT

- on- or offshore
- mobile or stationary
- worldwide delivery
- worldwide service through Caterpillar dealer network

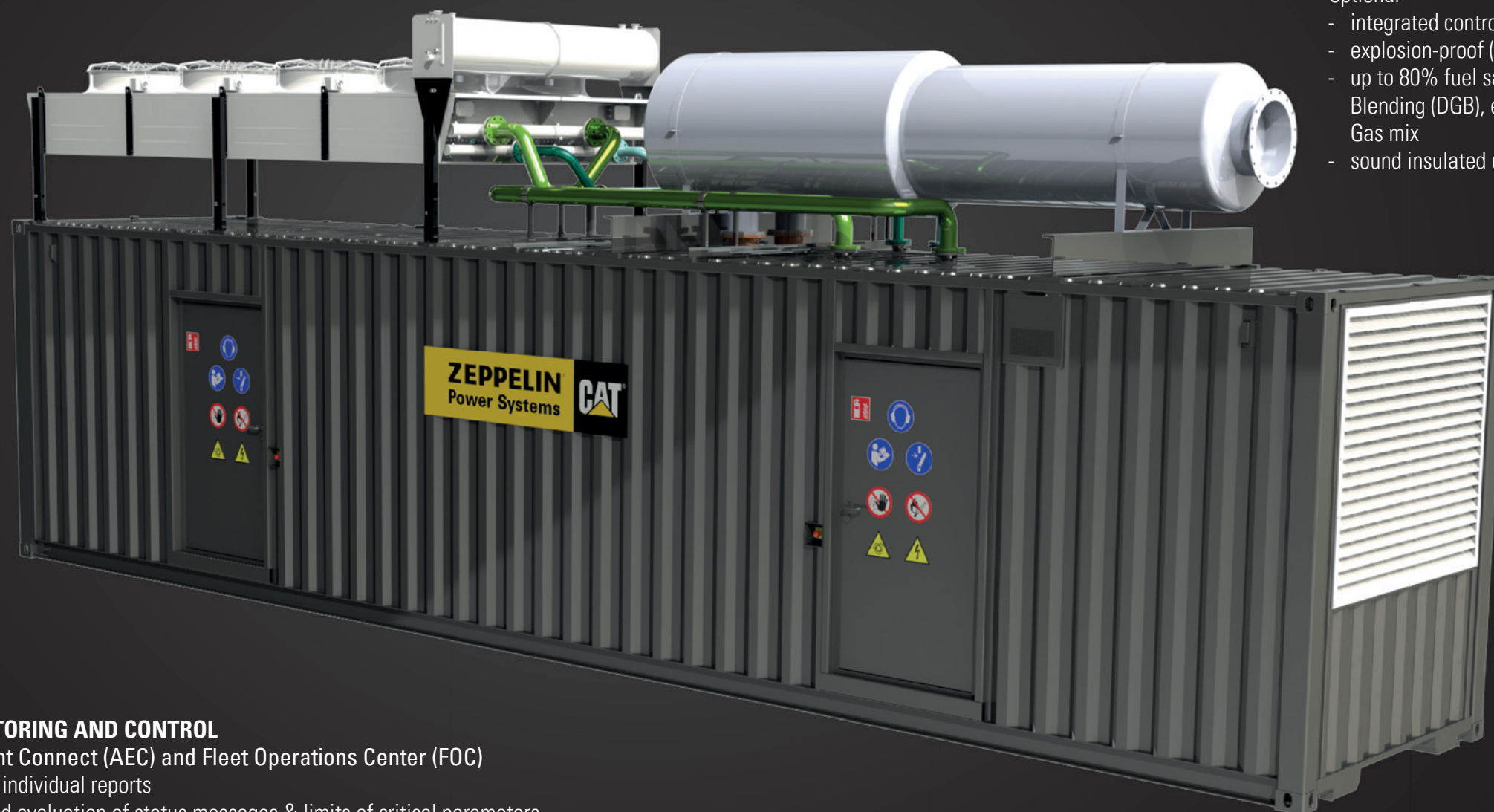
TURNKEY SOLUTION

One source: Zeppelin Power Systems

- consulting
- design
- engineering
- construction
- project management
- service

HIGHLIGHTS

- quality according to EU Machinery Directive 2006/42/EC
- modular design for quick assembling at site
- plug and play
- optional
 - integrated control system
 - explosion-proof (ATEX)
 - up to 80% fuel savings with Cat® Dynamic Gas Blending (DGB), enabling the use of a Diesel and Gas mix
 - sound insulated up to 80dB (A) in 1m free field



REMOTE MONITORING AND CONTROL

Active Equipment Connect (AEC) and Fleet Operations Center (FOC)

- automated or individual reports
- monitoring and evaluation of status messages & limits of critical parameters
- operational data trend analysis
- automated alarms via e-mail, sms or call
- location independent remote control
- service-helpdesk

CONTAINER

Individual solutions

- standard container 5 - 40 ft
- customized container (e.g. special size or open sides)

BROAD RANGE OF ENGINES

Approved Cat® engines and gensets

- diesel engines from 200 to 4,000 kVA
 - gas engines from 500 to 10,000 kWe
- variable gas use: Natural, Coal Mine, Bio Gas and other

ZEPPELIN POWER SUPPLY, YOU CAN COUNT ON.

- 1 KIRUNA**
Industrivägen 30, 981 38 Kiruna
- 2 GÄLLIVARE**
Energiplan 2, 982 38 Gällivare
- 3 BODEN & CRC ANLÄGGNING**
Slipvägen 18, 961 43 Boden
- 3 BODEN (SITECH)**
Slipvägen 18, 961 43 Boden
- 4 UMEÅ**
Läringsgatan 28, 904 22 Umeå
- 5 TIMRÅ**
Plåtslagarvägen 13, 861 36 Timrå
- 6 ÖSTERSUND**
Plankvägen 4, 831 77 Östersund
- 7 BORLÄNGE**
Godsvägen 8, 784 72 Borlänge
- 8 UPPLANDS VÄSBY**
Jupitervägen 10, 194 43 Upplands Väsby
- 8 UPPLANDS VÄSBY (SITECH)**
Gamla Stallet, Stora Väsby, 194 37 Upplands Väsby
- 9 KARLSTAD**
Brätetorsvägen 13, 656 39 Karlstad
- 10 ÖREBRO (SITECH)**
Radiatorvägen 11, 702 27 Örebro
- 11 LINKÖPING**
Rönögatan 13, 582 78 Linköping
- 12 GÖTEBORG (LINNARHULT)**
Långavallsgatan 3, 424 57 Gunnilse
- 13 GÖTEBORG, HUVUDKONTOR**
Prästgårdsgatan 34, 431 44 Mölndal
- 13 GÖTEBORG (SITECH)**
Aminogatan 22, 431 53 Mölndal
- 14 VÄXJÖ**
Lämmelvägen 4, 352 45 Växjö
- 15 ESLÖV**
Verkstadsvägen 6, 241 38 Eslöv



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