



Image shown may not reflect actual configuration.

Features

Reliable, Modular and Mobile

The Cat PGS module is a robust, mobile energy storage platform. The module consists of a pre-engineered container that is easily installed on site. Multiple modules may operate in parallel to provide increased power output and/or increase the energy capacity.

Renewable Integration

The modules are designed to work with an array of renewable systems, including solar and wind. Seamless integration with the Cat[®] Microgrid Master Controller (MMC) allows for maximum renewable penetration and full asset control.

Transient Assist

When used with a generator set, the Cat PGS module will provide power to decrease the transient voltage and frequency dips resulting from the application of large loads.

Grid Stabilization

The Cat PGS protects against many typical power problems, including power failure, voltage sags/surges, and under/over frequency conditions.

Cat[®] Bi-Directional Energy Storage Inverter

The Cat BDP1000 inverter is the core to the energy storage system. Based on technology developed for Cat electric drive machines. The Cat BDP provides exceptional reliability, durability and features that include:

- Controls for the charging and discharging of the energy storage equipment.
- 2 per unit fault current capability
- Static VAR compensator

Cat[®] Power Grid Stabilization (PGS)

Heavy Duty (HD)

1000 - 1260 kW

672 kWh

60 Hz 480-600 Volt

The Cat[®] PGS module is a scalable, rapidly deployable energy storage system with a heavy-duty battery structure. The PGS integrates with solar or other renewable sources to provide short duration power when the renewable source is not available or reserve power capacity to optimize generator sets efficiency. This system provides temporary backup power to facilities in the event of a power outage.

- Four-quadrant output power factor control
- Dual parallel control of two inverter halves
- Patented nonlinear droop for tight control of voltage and frequency
- Seamless mode transfer
- Automatic anti-islanding
- Grid forming, grid firming, and grid following modes
- Autonomous mode or Remote-Control mode
- Parallel ready – multiple modules may be used in parallel to increase total output up to 100+MW)

Energy Storage

- Advanced lithium-ion batteries provide good energy density, high discharge/recharge efficiency, and high cycle life.
- Heavy Duty battery structure provides vibration isolation during transport.

Standard Equipment

- Cat BDP1000 bi-directional energy storage inverter
- Energy storage batteries
- Color HMI touchscreen
- Remote communications via Modbus TCP
- HVAC system to maintain optimal interior temperatures
- Fire suppression system
- Transport trailer

Applications

- Renewable smoothing
- Grid firming/grid stabilization
- Generator set transient assist
- Facility backup
- Reserve power capacity
- Temporary rental

Technical Specifications*

Model		PGS1260 HD
Output Power		
Maximum Continuous at 1.0 PF	kW	1000
Overload (Only in Island Mode)		
15 min Overload at 1.0 PF	kW	1170
10 min Overload at 1.0 PF	kW	1225
5 min Overload at 1.0 PF	kW	1260
1 min Overload at 1.0 PF	kW	1260
10 s Overload at 1.0 PF	kW	1260
Energy (Nameplate Beginning of Life)	kWh	672
Number of Battery Rack	qty	6
Battery type		Li-Ion
Battery Chemistry		NMC
Application		High Power
Inverter Model		BDP1000
Number of inverters		1
Isolation Transformer	Pri / Sec	△-Delta / Y-Wye
Number of Transformers		1
Output Voltage	(50Hz)	380*/400/415*/690* VAC
	(60Hz)	480/600* VAC
Output Voltage THD		<3%
Ambient Temperature Capability	°C	-40 to +50
Altitude	mASL	2000
Average Parasitic Load		
At 0° / 40°C in standby operation (0% load)	kW	2.0/4.0
At 0° / 40°C in continuous operation	kW	33.0/36.0
Shore Power Connection	V (50Hz)	400V 50Hz
	V (60Hz)	480V 60Hz
Features		
Transient Ride Thru & Stabilization		Yes
Patented Non-Linear Droop Control		Yes
Seamless mode transfer		Yes
Islanding detection		Yes
Grid forming		Yes
Four Quadrant Power Factor Control		Yes
Static VAR compensator		Yes
2 Per Unit Fault Current Capability		Yes
Reserve Power Capacity		Yes
Plug-and-Play parallel ready		Yes
Energy Storage Management		Yes
Human-Machine Interface		Yes
Fire Suppression System		Yes
Communications Protocols		Modbus TCP/IP

¥ - Ensure compatibility of all microgrid equipment by referring to A&I guides (or equivalent) for generator sets, BDP inverters, PV inverters, switchgear, and controls. Contact your local Cat dealer for assistance selecting compatible equipment.

* - Consult factory for output voltage technical data and product availability.

Applicable Standards and Certifications

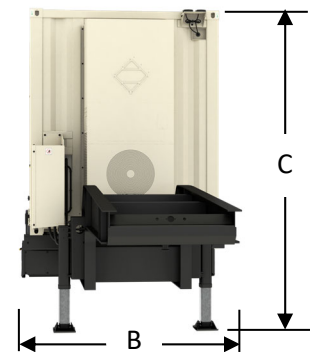
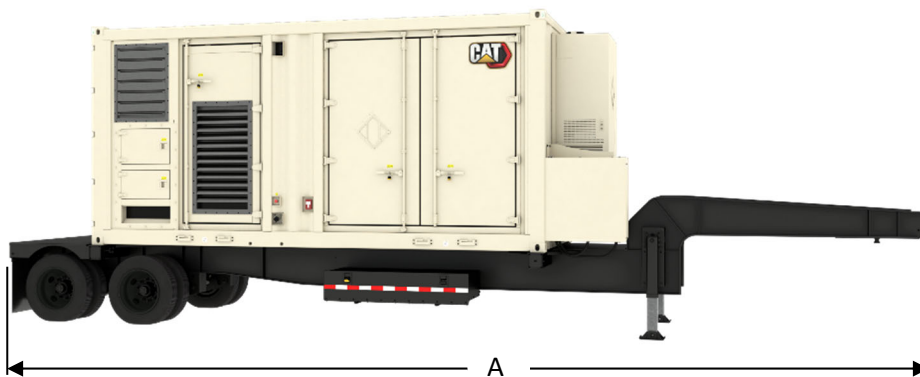
- UL Listed to the following standards (cULus certification and mark)
 - Energy Storage System
 - UL 9540 Ed1
 - UL 9540 Ed2 (pending)
 - Bi-Directional Energy Storage Inverter (BDP1000)
 - UL 1741 SA
 - UL 1741 SB (pending)
 - IEEE1547-2018
 - IEEE1547.1-2020
 - UL1998
 - CSA C22.2 No. 107.1:16
 - CSA C22.3 (pending)
- Microgrid Master Controller (MMC-S)
 - UL 508A Type 4 (outdoor rated)
 - CSA C22.2 No. 14-18
 - CSA C22.2 No. 94; Type 4
- CE Declaration of Conformity:
 - Energy Storage System
 - IEC60204-1 (pending)
 - Bi-Directional Energy Storage Inverter (BDP1000)
 - IEC62477-1 (pending)
 - IEC62909 (pending)
 - Microgrid Master Controller (MMC-S)
 - IEC60204-1 (pending)

Remote Monitoring (Sold Separately)

The Cat® Connect telematic device (PLR809 router) and an active subscription to Cat Connect are required for battery warranty. The internet connection provides real time monitoring of the performance and health of the battery and installation. If an issue is detected, local technicians can be dispatched to resolve the problem.

Worldwide Product Support

- Cat dealers provide extensive post-sale support including maintenance and repair agreements.
- Cat dealers have over 1,800 dealer branch stores operating in 200 countries.



Dimensions		PGS1260 HD
A - Length	m (ft)	11.56 (37.93)
B - Width	m (ft)	2.66 (8.73)
C - Height	m (ft)	3.96 (12.99)
Weight (approximate)	kg	23,090
	(lbs)	50,905

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