Image shown may not reflect actual configuration

Cat® Energy Storage System (ESS)

General Service ESS
48V DC

The general service ESS is designed to deliver continuous power at nominal rated output with an average daily use of three hours per day. Typical applications include peak shaving, load shifting, and backup power applications in locations where reliability, long calendar life, long runtime capability and scalability are desired.

Features

Product Features
- Greater usable capacity – provides up to 100% usable range of state-of-charge (SoC) without compromising cycle life.
- No depth of discharge (DoD) limitation. Energy cells can remain at 0% SoC for extended periods of time with no long-term operating life impact.
- Zinc-air energy storage cells are inherently safe as there is not a mechanism for thermal runaway, providing advanced safety features.
- Suitable for outdoor installation in normal to dusty environments with an IP 55 enclosure.
- Designed for outdoor operation in 0°C to 50°C temperature range with no impact on cell life and no requirement for air conditioning.
- Reduced possibility of theft – cells will not operate when removed and contain no valuable raw materials inside.
- Smart monitoring and balancing at the individual cell level.
- 24/7 site visibility through the Cat® telematics suite.

Reliable Power Protection
The Cat energy storage system provides reliable, long-duration uninterruptible power for Telecom BTS and microwave backhaul operations. The energy storage system features long life cycle characteristics.

More Usable Energy Storage
The zinc-air energy cell performance is not adversely affected by deep discharging, long standby conditions, or exposure to high ambient temperature. More usable energy storage means a smaller battery system when compared to other energy storage technologies that have a life cycle impact when repeatedly discharged to low SoC.

Smart Monitoring
Integral to every Cat ESS is a telematics suite that provides superior analytics for tracking local power reliability, ESS performance, remaining life, individual cell health, and operating cost optimization. Essential ESS health data and peripheral site status, such as electrical grid state, diesel generator set status, and overall product readiness, are captured.

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.

Telecom
Energy Storage System

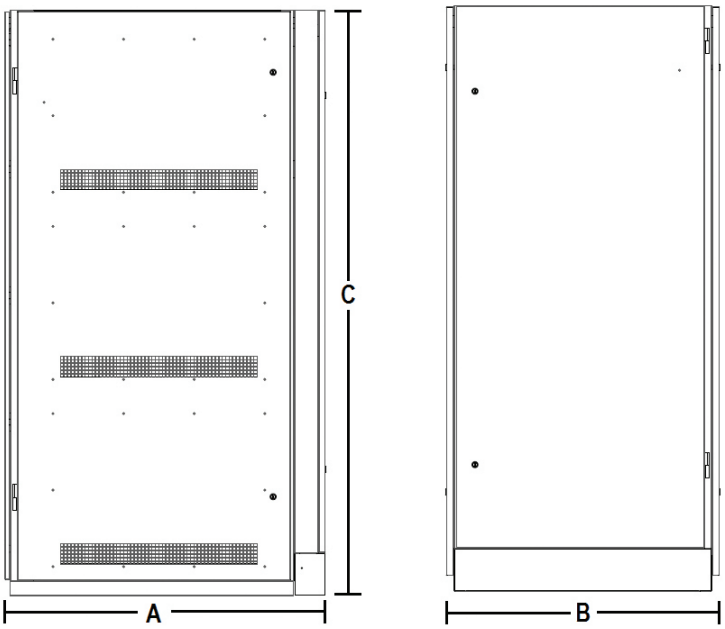
Technical Data

Sales Model	Peak Power	Runtime at Peak Power	E/10 Power (10 hr rate)	Nameplate Energy E/10	Maximum Charge Power	Charge Time (from full system DoD event)	Ambient Temp Range (Operation)	Ambient Temp Range (Storage)
ES6H0.75 DC	0.75 kW	7.25 hrs	0.60 kWh	6.0 kW	1.2 kW	12.6 hrs	0°C to 50°C (32°F to 122°F)	-20°C to 50°C (-4°F to 122°F)
ES12H1.5 DC	1.50 kW	7.25 hrs	1.20 kWh	12.0 kW	2.4 kW	12.6 hrs		
ES18H2.25 DC	2.25 kW	7.25 hrs	1.80 kWh	18.0 kW	3.6 kW	12.6 hrs		
ES24H3.0 DC	3.00 kW	7.25 hrs	2.40 kWh	24.0 kW	4.9 kW	12.6 hrs		
ES30H3.75 DC	3.75 kW	7.25 hrs	3.00 kWh	30.0 kW	6.1 kW	12.6 hrs		
ES36H4.5 DC	4.50 kW	7.25 hrs	3.60 kWh	36.0 kW	7.3 kW	12.6 hrs		

Dimensions

Sales Model	Total System Weight	Length Dim "A"	Width Dim "B"	Height Dim "C"
ES6H0.75 DC	502 kg (1107 lbs)	1520 mm (59.8 in)	872 mm (34.3 in)	1850 mm (72.8 in)
ES12H1.5 DC	810 kg (1786 lbs)			
ES18H2.25 DC	1119 kg (2467 lbs)			
ES24H3.0 DC	1569 kg (3459 lbs)	2490 mm (98.0 in)	872 mm (34.3 in)	872 mm (34.3 in)
ES30H3.75 DC	1878 kg (4140 lbs)			
ES36H4.5 DC	2187 kg (4822 lbs)			

For reference only. Do not use for installation design. Please contact your local Cat dealer for exact weight and dimensions.



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