

STAY CONNECTED WITH DEPENDABLE AND RELIABLE POWER



**CUSTOMIZED HYBRID POWER SOLUTIONS DESIGNED
TO KEEP YOUR TELECOM TOWER CONNECTED**



Caterpillar's extensive experience in the telecom industry allows us to deliver power solutions that keep your customers connected.

Our innovative hybrid power solutions help you meet your power needs and emission goals, while our global dealer network helps you succeed by providing support and exceptional value. Trust Cat® Electric Power for telecom solutions that blend renewable energy, smart storage and diesel power to ensure reliable power for you and reliable communication for your customers.

Cat Hybrid energy systems are designed to excel in telecom and other DC voltage applications. They integrate multiple energy sources such as solar power, electrical utility/grid (where available), and generator sets. This enables the ETS150 Energy Time Shift module to store power generated by renewables, then supply the stored energy when the renewable source or electrical utility/grid is unavailable or not sufficient to meet the site load.

APPLICATIONS

- Mobile telecommunication base station towers
- Remote locations with limited or no grid connection
- High uptime requirements with limited maintenance

STANDARD EQUIPMENT

- Photovoltaic System Controller with touchscreen HMI, remote control and monitoring communication
- Solar MPPT Charge Controllers (sized to application)
- Rectifier Modules (AC-DC) (sized to application)
- Inverter Module (DC-AC) (optional)
- Energy storage batteries (sized to application)
- 4G GSM modem and MODBUS connectivity



Technical Specification

MODEL	ETS150	
MODULE		
Energy Rating	kWh (Max.)	150
	kW (Input)	3.2 - 45
	kW (DC Input)	33.6 (Max.)
	kW (Output)	24 (Continuous)#
Output Voltage and Frequency	VDC	48 V
	VAC 1-Phase	230 V / 50 Hz (optional) 120 / 127 / 220 V / 60 Hz (optional)
Genset Input	VAC 1-Phase VAC 3-Phase	220 - 240 V / 60 Hz (optional) 380 - 480 V / 60 Hz (optional)
	VAC 1-Phase VAC 3-Phase	220 - 240 V / 50 Hz (optional) 380 - 415 V / 50 Hz (optional)
Operating Temperature Capability	°C	-20 to + 45
Storage Temperature Capability	°C	-40 to + 70
Enclosure Protection		IP56
E-Stop		Yes

SOLAR PV CONTROLLER / MPPT		
Battery Current	Max.	60 Amps
Nominal Output Power @ 48 VDC	Max.	3200 Watts
Number of MPPTs	Min. - Max.	1 - 8 Units

RECTIFIER CONTROL MODULE		
Nominal Output Voltage	VDC	54
Power Limit	Watt	2900
Number of Rectifier Control Module	Min. - Max.	1 Unit
Number of Rectifier Modules	Min. - Max.	1 - 15 Units

BATTERY RATING*	Ah	250
	Ah	300
Number of Battery Racks	Qty.	1 - 10
Energy Type		Li-Ion
Battery Chemistry		NMC
Type		High Energy

HMI CONTROLLER MODEL		Touch Screen, Android OS
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OPTIONS		
Remote Monitoring		Yes
Air Conditioner		Yes
Thermo-Hydrometer		Yes
Smoke Alarm		Yes
Water Immersion Sensor		Yes
Cabinet Door Limit Switch Sensor		Yes
Battery Anti-Theft Sensor		Yes
PV Panel Anti-Theft		Yes
Automatic Transfer Switch (ATS)		Yes
Battery Expansion Cabinet		Yes
PV Combiner Box		Yes
Communications Protocols**		Ethernet and RS485

* Battery not included in the ETS cabinet. ** Please refer the equipment cut sheets to find more information on communications ports.
110% DC overload 26.4 kW - 10 Minutes (Max.) # 120% DC overload 28.8 kW - 5 Minutes (Max.)



We're built to provide integrated solutions for all your electric power needs. Your Cat dealer is equipped with a full range of products, services and invaluable expertise to ensure the equipment you trust today is the same equipment you trust tomorrow.

**To find your nearest dealer,
please go to www.cat.com.**

LET'S DO THE WORK.™

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