Empowering your energy journey

Portable and canopy range of
Energy Storage Systems

Empowering your energy journey

Atlas Copco's consolidated Energy Storage System (ESS) range is at the heart of the power supply transformation.

Developed with sustainability in mind, it helps operators dramatically reduce their fuel consumption and CO2 emissions, while delivering optimal performance with reduced noise and service cycles. Leveraging the benefits of high-density lithium-ion batteries, these units are compact and light compared to traditional alternatives, yet capable of providing days of autonomy of power with a single charge. They are ideally suited for noise-sensitive environments, such as events and metropolitan construction sites, telecom, rental applications and to efficiently cover low loads.

These Energy Storage Systems are a perfect fit for applications with a high energy demand and variable load profiles, as they successfully cover both low loads and peaks. For example, they can properly size cranes and other electric motors, and efficiently manage peaks in energy demand for noise-sensitive events and for electric vehicle (EV) recharging stations.

Furthermore, operators can synchronize several models, which can become the heart of any microgrid, storing and delivering energy coming from several energy sources, including renewables.

<1 HOUR **FAST RECHARGE**

70% MORE **COMPACT & LIGHTER** IN WEIGHT

>30 UNITS **HYBRID POWER** PLANTS

>50% INCREASED **PRODUCTIVITY**

UP TO **90%** LESS **FUEL** AND **CO_2 EMISSIONS***

*When working in hybrid mode with power generators

The solution to meet your needs

MODEL	POWER ENERGY	APPLICATION	MANUFAC-TURING	EVENTS	TELECOM BROADCAST	CONSTRUC-TION	MOTORS CRANES	RECHARGING POINT	GRID JOBS UTILITIES	RENEWABLES
ZBP 2000	2000 VA 2000 Wh	Noise reduction Low loads Prime power		●		●				○
ZBP 15-60 ZBP 35-40 ZBP 45-60 ZBP 45-75	15/45 kVA 40/60/75 kWh	Peak shaving Low loads Prime power	○	●	●	●	●			○
ZBP 120-120 ZBP 150-150	120/150 kVA 150/150 kWh	Peak shaving Low loads Prime power	○	●	●	●	●	●		●
ZBC 250-575	250 kVA 575 kWh	Energy storage Hybrid Prime power	●	●	○	●		●	●	●
ZBC 300-300	300 kVA 300 kWh	Hybrid Prime power	●	●	○	●	○	○	●	○
ZBC 500-250	500 kVA 250 kWh	Peak shaving Prime power	○			●	●		○	

Prime power: Non-stationary demand, not UPS
Low loads: Improving a diesel genset performance
Peak shaving: Consume peaks totally or partially

Energy storage: Avoid wasting extra energy production
Noise reduction: Reduce acoustic pollution
Hybrid: Plug and play with other energy sources

● BEST CHOICE
○ SUITABLE

HYBRID MICROGRIDS

CRANE CONSTRUCTION

MOTORS

SOLAR PLANT

RECHARGING STATION

EVENTS

A full portfolio, multiple energy-efficient solutions

ISLAND Mode

The island mode enables our Energy Storage Systems to be used as a standalone power solution. It is an ideal way to meet the needs of noise-sensitive environments like night operations, remote telecom applications, or to resolve low load challenges.

QUIET TECHNOLOGY

These models are silent in operation, delivering reduced noise emissions, thereby contributing to a safer working environment. They are a perfect choice for noise-sensitive applications, such as events and metropolitan construction sites. Allowing to increase the productivity of the core business **up to 50%**

COMPACT DESIGN

Battery technology allows us to reach high power machines in the most compact version, making them easier to transport and **up to 70%** lighter in weight than other battery types in the market. Modularity is a big benefit while talking about transportability.

FAST CHARGING

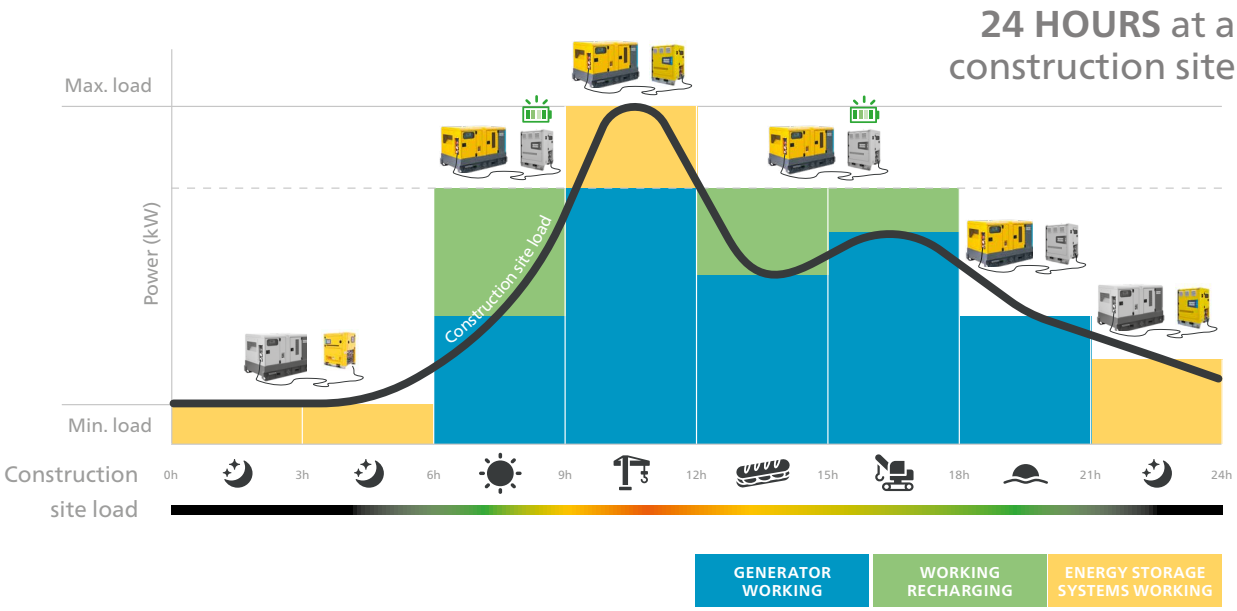
In Island mode, the machines are ready to perform in a very easy way. Connect them directly to the loads and start working. And as they need to be ready at any moment, fast charging is a must, these units can be fully recharged in **less than 1 hour** depending on the model, thanks to its lithium-ion batteries.

CLEAN TECHNOLOGY

When used in island mode, CO2 savings will grow exponentially if the units are powered by renewable energy sources. You can scale the solution to reach the needed energy demand with the smart paralleling system.

HYBRID Mode

In hybrid mode, these Energy Storage Systems successfully manage energy coming from different sources, including renewables (like solar and wind), the power grid and diesel generators.
These battery-based units provide resilient and reliable energy on demand, helping operators lower their emissions, meet regulations and cut costs in an broad spectrum of applications.



HYBRID SOLUTIONS

With a wide offer of socket options, the units are easy to connect to the different energy sources available on site. Also, thanks to ECO, Atlas Copco's Energy Management System (EMS), these units can be synchronized to increase the power offering to match the demand.

PROTECT YOUR GENERATOR FLEET

In hybrid mode with a generator, these Energy Storage Systems increase the solutions' overall efficiency, accounting for the peaks of power and low loads. They optimize the generator's performance extending its lifespan by **up to 15%**, and decreasing general maintenance and overhaul cost **by 50%**. This means **that a 40%** smaller generator can be used.

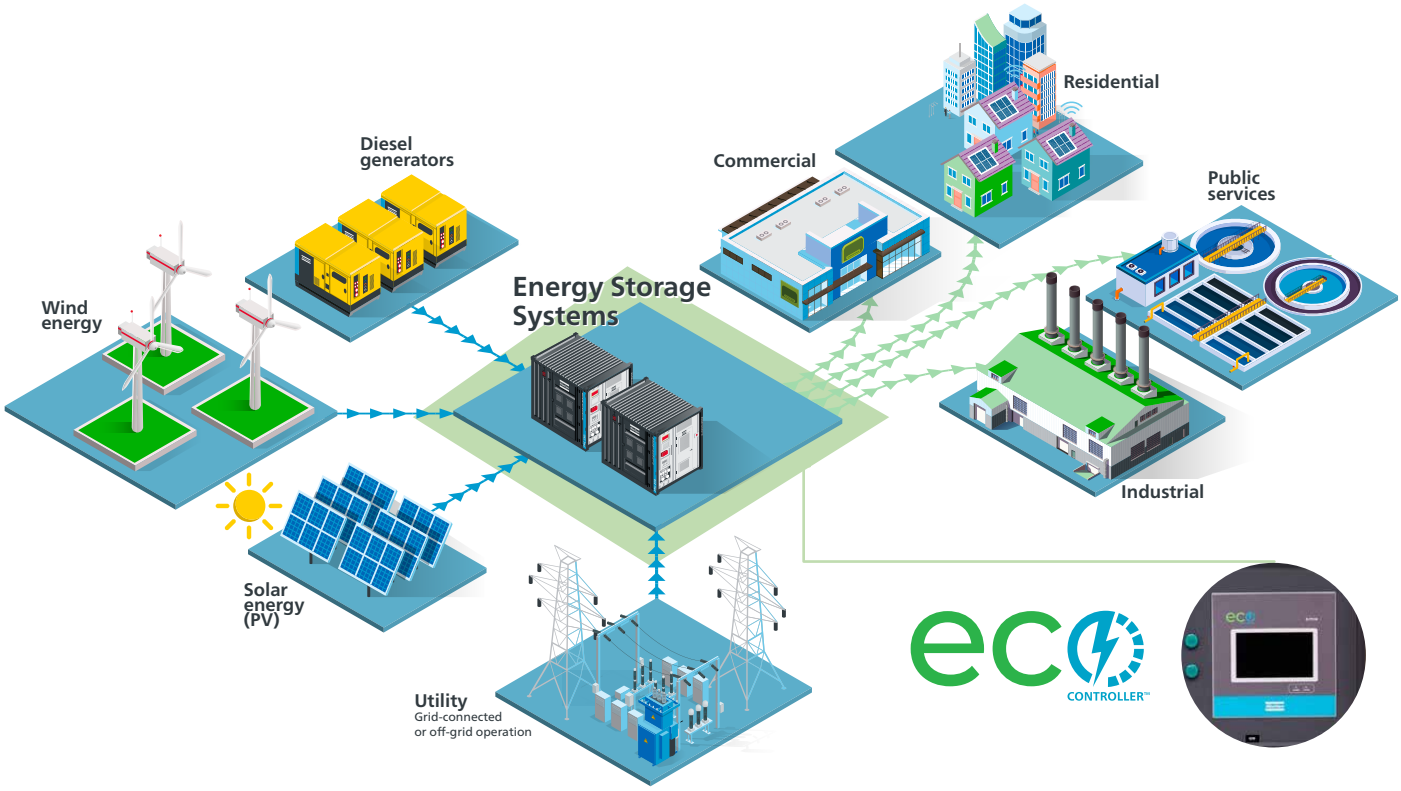
ENERGY SAVINGS

When an Energy Storage System is managing energy coming from renewables, the grid or even from a hydrogen fuel cell, there is no fuel consumption and no CO2 emissions during operation. In hybrid mode with a diesel generator, users can reduce daily fuel consumption by **up to 90%**, saving more than 200 tons of CO2 during its operating life.

- **Lower fuel consumption and emissions.** 30 to 90% depending on application (avoiding the average load for the generator being below 30%)
- **Lower service and maintenance costs.** Depending on application, reduce generator running hours by up to 70%
- **Long lifetime of generator.** Due to the above points, the lifetime of a generator is extended 5-10 years

A future-proof approach to optimized energy supply

ecogrid



ECOgrid:

The ECOgrid, an integrated energy systems solution from Atlas Copco, encompasses power generation, power management and power distribution, conversion, and transformation. As power is generated from independent power networks and renewable sources, the heart and brain, Energy Storage Systems and ECO controller, enable the combination of several energy sources which further leads to deployment of flexible power through distribution boxes, cables to light towers, load banks and other equipment, while transforming power through charging stations and chargers.

The ECOgrid helps rental companies and operators to deploy reliable power, decarbonizing operations and achieving significant fuel, energy and lifecycle savings.

Atlas Copco

ECO, the brain of the solution

The ECO Controller™ by Atlas Copco, is a human-machine interface (HMI) that provides operators with full control over their temporary power applications by optimizing energy generation, distribution, and consumption through advanced data management.

WHY ECO?

- Fully flexible and customizable
- Provides remote control and is open to communicate with third party monitoring systems

VERSATILITY

- The "conductor" that orchestrates energy sources with a demand side craving cleaner solutions

WHAT DOES IT DO?

- It controls and monitors Energy Storage Systems, integrating the collected data
- Centralizes all hybrid energy sources

FLEXIBLE & CONSISTENT SOFTWARE

- In-house development
- Same user experience in all products
- Scalable for global solutions and future applications

CONNECTED

- Manual and automated controls
- Ensures optimal performance
- Increases component lifetime

FRICTIONLESS

- User friendly
- Dedicated for Rental Industry
- Ensures seamless interface
- Client driven software

Portable range
Energy Storage Systems
2000 VA

The lightest and most portable of our Energy Storage Systems

The lightest and most portable of our Energy Storage Systems, the ZBP 2000, is built for small events and small construction sites, and to power electric tools. Compact and lightweight, the unit has IK09 impact resistance classification and has an Ingress Protection rating of IP65, meaning it provides exceptional protection from dust and water in harsh environments.

With the option to parallel up to 5 units, the solution can be scaled up to 10kWh of modular energy storage, enhancing performance and reducing total cost of ownership. The ZBP 2000 also comes with two small foldable solar panels that could be used to recharge in great weather conditions or to maintain a proper battery level during less efficient production days.

Portable range
Energy Storage Systems
2000 VA

Up to 5 UNITS PARALLEL CAPABILITY

With trolley handle for EASE OF TRANSPORT

eco CONTROLLER™

MEET REGULATIONS

- Reduced noise and no emissions working standalone and with renewable energy sources
- Two foldable solar panels to recharge
- Distribution box

PORTABLE SOLUTION

- Light and compact
- Less than 1m^3 footprint
- Handle to pull
- IK09 certified: impact test resistance

EXCELLENT PERFORMANCE

- Paralleling capabilities up to 5 units
- IP65 classified: water and dust isolation
- Fire extinguishing system included

THE ERA OF CONNECTIVITY

- WIFI and APP connection
- Defined alarms
- System status capacity

Options

+ Heater for cold temperatures
+ Solar panels 200W or 400W

+ Socket configuration:
- 2 x CE 230VAC
- 2 x AUS 220VAC
- 2 x UKCA 110VAC
- USB

Discover key features of our Canopy Energy Storage Systems at a glance:

Visual highlights, Powerful benefits

ECO Controller

The ECO Controller allows a quick and easy setup of one or multiple energy storage systems, while simultaneously integrating the load and all available power sources. Assisted guided interfaces and different user levels allow versatile use, even for untrained users. For the rare case that predefined settings are not suitable enough, advanced functionalities allow the user an effortless adaptation to the individual application - both standing in front of the machine or remotely.

Passthrough

Our energy storage systems are enabled with a passthrough capability which allows up to 400 amperes of electrical current to flow directly from an input source, such as a generator, another energy storage system, or the grid, without being stored or converted to an output source. This enables the energy storage system to supply additional power directly to loads which are engaged in critical applications such as peak shaving and backup power without conversion to ensure the energy source is used in the most efficient way while allowing to supply both low loads and high power when needed.

Paralleling

The paralleling capability of our energy storage systems refers to its ability to connect multiple ESS units together with multiple generators or the grid and operate them as one synchronized unit. This ensures more energy is stored for large scale operations and functions as a reliable microgrid for maximum energy efficiency and productivity.

Lithium-technology

HIGH CAPACITY LITHIUM ION BATTERY

Lithium-technology and especially Lithium Iron Phosphate (LFP) offers the best in class energy density and performance, while being safe and reliable in usage and handling. Integrating advanced Battery Management Systems (BMS) and controlling environmental effects such as weather, temperature and humidity, while monitoring the load demands and charging with our ECO Controller allows the ESS to reach highest lifetime even in non-ideal temperatures.

IP Rating

STURDY IP55 design

Tough environmental conditions, dirt and heavy rains are common in outdoor applications such as construction, events or even telecom in remote places. Our Energy Storage systems face these tough conditions with a minimum IP55 protection against dust and water, complemented with dedicated base frames lifting beams and canopies. Moving these units is fast, safe and easy.

Canopy range
Energy Storage Systems
15 kVA - 45 kVA

HIGH CAPACITY LITHIUM ION BATTERY

STURDY IP55 design

FAST HYBRID SET UP 1 MINUTE

eco CONTROLLER™

THE ERA OF CONNECTIVITY

- ECO controller™, dedicated management system - the brain of the solution
- Remote monitoring system
- Master system for: Technical diagnosis and fuel saving calculations

LITHIUM-ION TECHNOLOGY

- Perfect match for short cycles (charge and discharge) performance
- Large usable energy range compared to other technologies
- Low total cost of ownership

MODULAR AND MOBILE

- Water and dust isolation IP55
- Galvanized skid
- Integrated lifting structure with single elevation point
- Dedicated maintenance doors
- Sling guides

PLUG AND PLAY

- Wide connection panel for multiple socket combinations
- Plug and play sockets with any genset and load
- Passthrough capability

Canopy range
Energy Storage Systems
120 kVA - 150 kVA

HIGH CAPACITY LITHIUM ION BATTERY

STURDY IP55 design

eco CONTROLLER

EASY AND INTUITIVE SETUP

- Fast and guided setup for all applications
- Password protected user groups
- Two way communication and monitoring

ROBUST IN TOUGH CONDITIONS

- Any load from 0%-100%
- Low noise – even adjustable
- Setup in <1min

FULLY AUTOMATED SOLUTION

- Highest efficiency from any source of power
- Setup and forget
- Decrease TCO of the whole application

VERSATILE OPERATIONS

- Island or Hybrid mode
- Plug-And-Play setup
- Double the power & capacity

Applications:

Island Solution	Hybrid Solution	Series Mode

*depending on application

Atlas Copco

		ZBP 2000	ZBP 15-60	ZBP35-40	ZBP 45-60	ZBP 45-75
General technical data						
Rated power	kVA / kW	2	15 / 12	35 / 35	45 / 36	45 / 36
Rated energy storage capacity	kWh	2.16	58	38.4	58	77
Rated voltage (50Hz) (1)	VAC	230	230	400 / 230	400 / 230	400 / 230
Battery rated voltage	VDC	48	48	48	48	48
Rated current discharge	A	9	52	50	52	52
Operating temperature (2)	ºC	-10 to 45	-10 to 50	-10 to 50	-10 to 50	-10 to 50
Sound power level	dB(A)	<80	<80	<80	<80	<80
Battery						
Quantity	units	1	12	8	12	16
Battery type		LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Rated voltage	VDC	48	48	48	48	48
Rated capacity (@25ºC)	Ah	45	100	100	100	100
C-rate discharge		1	1	1	1	1
Recommended Depth of discharge (DoD%)	%	90	80	80	80	80
End of life (EOL%)	%	80	70	70	70	70
Expected cycle life (@DoD,EOL,25ºC) (4)	Cycles	2000	6000	6000	6000	6000
Battery balanced (recharge up to 100%)		Once per month	Once per month	Once per month	Once per month	Once per month
Inverter						
Quantity	units	1	1	3	3	3
Maximum apparent power (for seconds) (4)	kVA	3	22.5	67.5	67.5	67.5
Maximum passthrough current	A	18	100	100	100	100
Built in transformer		No	Yes	Yes	Yes	Yes
Performance						
Discharge autonomy 100% / 75% rated power	h	0.9 / 1.3	4 / 5.3	0.8 / 1.1	1.3 / 1.8	1.8 / 2.4
Discharge autonomy 50% / 25% rated power	h	2 / 4	8 / 16	1.6 / 2.5	2.7 / 5.3	3.5 / 7.1
Recharging time (@DoD%)	h	3	7	1.6	2.3	3.1
Hybrid recommendation (generator size)	kVA	3.5	30	45-120	45-120	45-120
Power factor acceptance		-1 … 1	-1 … 1	-1 … 1	-1 … 1	-1 … 1
Heating / Cooling system		Air cooled	Heaters* / Air cooled	Heaters* / Air cooled	Heaters* / Air cooled	Heaters* / Air cooled
Fire extinguisher system included		Yes	NA	NA	NA	NA
Maximum auxiliary consumption	kW	0.03	5.3	5.4	5.4	5.5
Total energy through output up to (4)	MWh	4	200	200	200	250
Dimensions and weight						
Dimensions (L x W x H)	mm	570 x 367 x 478	1450 x 1230 x 1865	1450 x 1230 x 1865	1450 x 1230 x 1865	1450 x 1230 x 1865
Weight	kg	37	1285	1400	1511	1618
Protection degree IP		65	55	55	55	55
Housing		HardHat	Metal canopy			

(1) Switchable 50/60Hz, Voltage range 380-415V (check with technical support) **(2)** Cold weather option advisable. **(3)** Lithium iron phosphate **(4)** Under specific conditions (check with technical support) **(5)** Paralleling capabilities available (check with technical support)

* Optional

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		ZBP 120-120	ZBP 150-150
General technical data			
Rated power	kVA/kW	120 / 120	150 / 150
Rated energy storage capacity	kWh	122.9	153
Rated voltage (50Hz) (1)	VAC	400 / 230	400 / 230
Battery rated voltage	VDC	614	384
Rated current discharge	A	174	217
Operating temperature (2)	ºC	-20 to 50	-20 to 50
Sound power level	dB(A)	< 56	< 56
Battery			
Quantity	units	8	10
Battery type		LiFePO4	LiFePO4
Rated voltage	VDC	76.8	76.8
Rated capacity (@25ºC)	Ah	200	200
C-rate discharge		1	1
Recommended Depth of discharge (DoD%)	%	80	80
End of life (EOL%)	%	70	70
Expected cycle life (@DoD,EOL,25ºC) (3)	Cycles	6000	6000
Battery balanced (recharge up to 100%)		Once per month	Once per 3 month
Inverter			
Quantity	units	4	5
Maximum apparent power (for seconds) (4)	kVA	156	195
Maximum passthrough current	A	400	400
Built in transformer		No	No
Performance			
Discharge autonomy 100% / 75% rated power	h	0.9 / 1.5	0.9 / 1.5
Discharge autonomy 50% / 25% rated power	h	2.0 / 4.0	2.0 / 4.0
Recharging time (@DoD%)	h	1.5	1.5
Hybrid recommendation (generator size)	kVA	100 - 300	150 - 300
Power factor acceptance		-1 … 1	-1 … 1
Heating / Cooling system		Heaters* / Air cooled	Heaters* / Air cooled
Fire extinguisher system included		NA	NA
Maximum auxiliary consumption	kW	1.08	1.08
Total energy through output up to (4)	MWh	536	720
Dimensions and weight			
Dimensions (L x W x H)	mm	2260 x 1300 x 2270	2260 x 1300 x 2270
Weight	kg	2645	3120
Protection degree IP		55	55
Housing		Metal canopy	Metal canopy

(1) Switchable 50/60Hz, Voltage range 380-415V (check with technical support) **(2)** Cold weather option advisable. **(3)** Lithium iron phosphate **(4)** Under specific conditions (check with technical support) **(5)** Paralleling capabilities available (check with technical support)

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Portable solar charging solution

ZSP 7-30 CE

Integrating new sources of energy is getting increasingly important on construction sites, events and telecom applications. Space limitations and the requirement to set up solar infrastructure fast and with as less personnel as possible often prevent the addition of renewable energy to suitable applications. The ZSP-range of portable solar solutions is addressing this problem and providing an easy solution that can be transported, setup and collapsed single-handedly by one person only.

Plug and play connections to the ZBP-range allow a fast integration into the application without any additional setup required. Direct DC connections to the energy storage system ensure there are no efficiency losses and the load is continuously supplied by the ESS, which also is able to store excess energy. The units can be deployed completely or partially, always providing the highest efficiency. For transport efficiency, all exposed sides are protected making it ideal for rough environments.

		ZSP 7-30 CE
Machine technical information		
Rated Total Power	W	6880
Solar Panel Power	W	430
Pieces		16
Connection Way		2-8S1P
Maximum Power Voltage	V	398V
Open Circuit Current	A	10.74 A
Components Working Temperature	ºC	-40 to 85
PACKAGING DIMENSIONS (L X W X H)	mm	2260 x 1123 x 1487
MAXIMUM COVERING AREA ON THE GROUND (L X W)	mm	21546 x 5094
WEIGHT	kg	830
CONNECTOR		MC4 is compatible

STC: Irradiance 1000W/m ^{2}, Battery temperature 25 ° C, AM=1.5 Pmax, Voc, Isc tolerance ± 5%

Solar panel STC technical information		
Model Name		SMF430F-12X12UW
STC Peak Power (Pmax)	W	430
Optimum Operating Voltage (Vmp)	V	42
Optimum Operating Current (Imp)	A	10.24
Open Circuit Voltage (Voc)	V	49.8

General description
To provide portable solar charging solution , Atlas Copco has developed a 6880w solar panel which in combination with the Atlas Copco Portable ZBP ensures that the recharge of the battery is zero emission. ZSP 7-30 is a portable unit equipped with solar panels and related technology to generate solar power. The machine is designed to be easily transported and set up in various locations,provide a versatile solution for off-grid needs.

Product portfolio

ENERGY STORAGE SYSTEMS

EXTRA SMALL
2–10 kVA

SMALL
15-150 kVA

MEDIUM
200–500 kVA

FAST CHARGER
160 kw

LIGHT TOWERS

DIESEL

BATTERY

ELECTRIC

GENERATORS

PORTABLE
1,6–12 kVA

SPECIALIZED
9–660* kVA

VERSATILE
9–1250* kVA

LARGE POWER
800–1450 kVA

*Multiple configurations available to produce power for any size application

DEWATERING PUMPS

ELECTRIC SUBMERSIBLE
up to 18 000 l/min

ELECTRIC SELF-PRIMING CENTRIFUGAL
833–23.300 l/min

SELF-PRIMING CENTRIFUGAL
833–23.300 l/min

ONLINE SOLUTIONS

FLEETLINK
Intelligent telematics is a system that helps optimize fleet usage and reduce maintenance, ultimately saving time and cutting operating costs.

PUMP SIZING CALCULATOR
With a few inputs, this pump sizing calculator will help you to compare dewatering submersible models and find the right one for you.

ECO CALCULATOR: YOUR SIZING TOOL
A useful calculator to help you choose the best solution for your power and light needs.

Atlas Copco Power Technique
www.atlascopco.com