# Your clean and quiet source of energy

19m 26

ZenergiZe range, Energy Storage Systems

100

Wattmester Kft. www.wattmester.hu +36-1-436-0630

Atlas Copco

NDCN 200901

0

telas Cop

ZenergiZe

# Your clean and quiet source of energy

The new ZenergiZe range from Atlas Copco takes modular energy storage to a new level. Developed with sustainability in mind, it helps operators dramatically reduce their fuel consumption and CO2 emissions, while delivering optimal performance with zero noise and virtually no maintenance. Leveraging the benefits of high-density lithiumion batteries, the ZenergiZe units are compact and light compared to traditional alternatives, yet capable of providing over 12 hours of power with a single charge.

They are ideally suited for noise-sensitive environments, such as event or metropolitan construction sites, telecoms, or rental applications, or to resolve low load problems.



**NOISE** 

SIONS

Data may change depending on models



# Zenergize

so'

Clean and quiet energy, optimal performance

# The solution to meet your needs





The ZenergiZe range perfectly fits with applications that require a continuous and demanding flow of electrical power energy. It is ideal to properly size cranes and other electric motors, for events celebrated in noisesensitive locations and for other stationary applications such as hospitals or recharging points for electrical cars.

Also, the ZenergiZe can be synchronized with other Energy Storage Systems, which allows the machine to become the storage of all the energy sources connected to a microgrid.













Our Energy Storage Systems can be used combined with generators or renewables, to make a hybrid power solution for construction sites, as well as to create microgrids, to provide energy to several applications, like residential, commercial, industrial or public services.

21

01

# One solution, multiple options

# **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 zero noise environments like night operations, remote telecom applications, or to resolve low load challenges.



# 

ZenergiZe models are silent in operation, delivering zero 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%**.

#### **₹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. But as they need to be ready at any moment, fast charging is a must, the ZenergiZe can be fully recharged in less than **3 hours.** 

## COMPACT DESIGN

Lithium-ion 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 technologies. Modularity is a big benefit while talking about transportability.

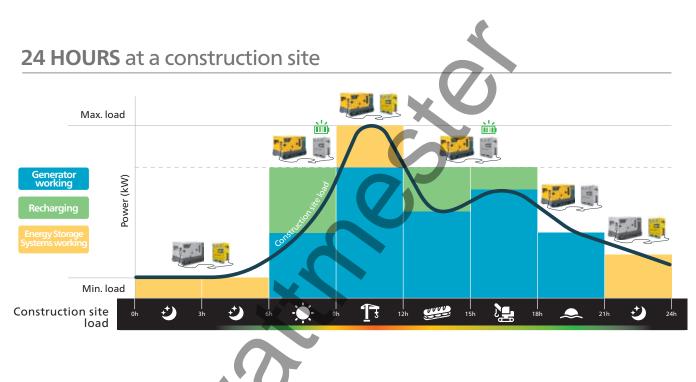
#### 🚓 CLEAN TECHNOLOGY

When used in island mode, the CO2 savings can reach **up to 100%** if the units are powered by renewable energy sources. You can scale the solution to reach the needed clean energy demand with the smart paralleling system.



## **HYBRID Mode**

In hybrid mode, the ZenergiZe Energy Storage Systems can be used together with any diesel generator to enable smart load management. With the benefit of zero noise emissions, the hybrid solution is ideal for use in a range of demanding applications, for example, any construction site where low loads or peaks can become a problem for the generator.



#### HYBRID SYSTEM

The units are easy to connect to the generator thanks to a wide offer of socket options. Also, paralleling ZenergiZe unit with our smart management controllers will allow you to increase the power offer according to the demand.

#### B ENVIRONMENTALLY FRIENDLY

In hybrid mode, users can reduce daily fuel consumption by **up to 80%**, saving more than 200 tons of CO2 during its operating life.

#### VERSATILITY

The ZenergiZe Energy Storage Systems enables versatile smart load management. The units help the generator reach the peaks of power, optimizing its performance, extending its lifespan **up to 15%**, and decreasing general maintenance and overhaul in **overhaul by 50%.** This means that **a 40%** smaller generator can be used. The ZenergiZe range is also ideal for managing low load requirements.

#### ZenergiZe, potential savings\*

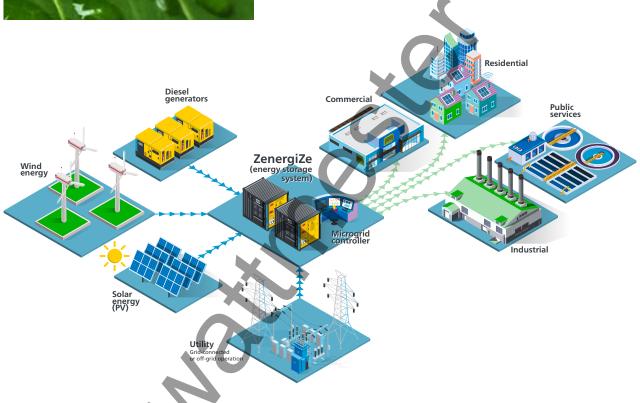


\*per unit during its life cycle, working in a hybrid solution

# Providing energy for a sustainable, green, and clean future

#### **MICROGRIDS**

ZenergiZe becomes a key piece of the microgrid. These are independent power network that uses local, distributed energy resources to provide grid backup or off-grid power to meet local electricity needs.



The Energy Storage Systems will help to benefit as much as possible renewable energy, as they are unpredictable energy sources although the most sustainable.

In combination with generators thanks to the paralleling system of Atlas Copco machines, this will become a total decentralized solution that will support the grid if needed.





# ZBC, large range Energy Storage Systems Key benefits

#### **EXCELLENT PERFORMANCE**

- Paralleling capability scalable solution
- Micro grid possibility with genset
- Photovoltaic management
- Temperature control
- Lithium-ion benefits

#### **PLUG AND PLAY**

- External connections Input and output for an easier hybridization
- External main control
- Alarms and emergency button access
- Fire extinguisher system

**ENVIRONMENTAL FRIENDLY** 

ZERO

- Reduce noise pollution, less than 80 dB(A) at 0,5 m
- Zero CO2 and NOx emissions
- Provide clean and efficient renewable solutions

#### LOWER COST OF OWNERSHIP

- Increase the lifespan of hybrid fleet
- Reduce fuel consumption up to zero
- Low maintenance
- Improvement of hybrid solution maintenance
- Proper sizing means more efficiency
- Increase your productivity avoiding new emission/noise legislations

**Optional features** 

• Paralleling controller

Customized color

Connections

NCREASE

# **ZBP medium range Energy Storage Systems Key benefits**



#### LITHIUM-ION TECHNOLOGY

- 40.000 hour lifespan under normal operating conditions
- Overload capability up to 200%
- Virtually no maintenance
- Perfect match for short cycles (charge and discharge) performance
- Large usable energy range compared to other technologies
- Specifically designed to work at high and low ambient temperatures, from -15° to 50°\*
- Low total cost of ownership



Smart start and stop

THE ERA OF CONNECTIVITY

- Energy Management system (EMS) with Battery management communication (BMS)
- Remote monitoring system and Bluetooth mobile application
- Parking mode



**A MODULAR AND PORTABLE SOLUTION** 

- Galvanized skid
- Integrated lifting structure with single elevation point
- Doors for maintenance and door restraints
- Sling guides
- Compact size and light weight for easy transport

#### Cold weather performance

- GPS + GSM 3G or WIFI
- Customized color Trailer
- MPPT Smart Solar Charger

**PLUG AND PLAY** 

• Emergency stop

• Earth pin

load

• Easy connection for solar panels

• Passthrough limitation 100A

Circuit Breakers and Earth leakage Relay

• Plug and play sockets with any genset and

atlascopco.com/zenergize

**Optional features** 





		and the second se			· ·	
General technical data		ZBP 45	ZBC 100-575	ZBC 150-575	ZBC 250-575	ZBC 500-250
Nominal rated power	kVA	45	100	150	250	500
Nominal energy storage capacity	kWh	50	576	576	576	246
Rated voltage (50Hz) (1)	VAC	400 / 230	400	400	400	400
Battery system voltage	VDC	48	768	768	768	768
Nominal rated current	А	65	144	217	360	720
Operating temperature (2)	°c	-15 to 50	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Sound power level	dB(A)	<80	<80	<80	<80	<80
Battery						
Quantity	units	12	30	30	30	20
Cell chemistry (3)		LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Nominal battery voltage	Vdc	12,8	76,8	76,8	76,8	76,8
Nominal capacity @ 25°C	Ah	330	250	250	250	160
C-rate discharge		1	0,5	0,5	0,5	2
Max recommended DoD % (depth of discharge)	%	90	90	90	90	90
Lifetime (% DoD) @ 25°C (4)	Cycles	6000	6000	6000	6000	6000
SoH (state of health)	%	70	70	70	70	70
Battery balanced (recharge up to 100%)		Once per month		Once pe	er 3 month	
Inverter						
Quantity	units	3	2	3	5	8
Total Peak Power (seconds)	kVA	67,5	110	165	275	550
Max passthrough current (5)	A	100		No lii	mitation	
Build in transformer		Yes	Yes	Yes	Yes	No
Performance						
Discharge autonomy 100% / 75% nominal power	h	1/1,4	5 / 6,6	3,3 / 4,4	2 / 2,6	0,4 / 0,6
Discharge autonomy 50% / 25% nominal power	h	2,1 / 4,7	10 / 20	6,6 / 13,3	4 / 8	0,9 / 1,8
Recharging time (@DoD%)	h	1,8	5,5	3,7	2,5	0,5
Hybrid recommendation (generator size)	kVA	60-120	>20	>30	>50	>50
Cooling system		Air cooled	HVAC	HVAC	HVAC	HVAC
Fire extinguisher system included		N/A	Yes	Yes	Yes	Yes
CE compliant		Yes	No	No	Yes	Yes
Dimensions and weight						
Dimensions (L x W x H)	mm	1300 x 1160 x 1900	2991 x 2438 x 2896			
Weight	kg	1325	11000	11000	11000	9900

(1) Switchable 50/60Hz, Voltage range 380-415V (check with technical support)] (2) Cold weather option advisable | (3) Lithium iron phosphate | (4) Check technical documentation for years-lifespan | (5) Parallelling capabilities available (check with technical support) || Standards: UN, CE, IEC, IEEE (check with technical support) || Atlas Copco is not responsible for any problem that may occur due to errors or changes of these data. They can also be changed or rectify without prior notification

## **Socket options**

		ZBP45			
		OP1	OP2	OP3	
IN	CEE 400V 5P 125A	1	-	1	
	POWER LOCKS	-	1	-	
	CEE 400V 5P 63A	-	-	-	
	CEE 400V 5P 32A	-	-	-	
	CEE 230V 3P 16A	1	1	1	
ουτ	CEE 400V 5P 125A	1	-	1	
	CEE 400V 5P 63A	1	1	1	
	CEE 400V 5P 32A	1	1	-	
	POWER LOCKS	-	1	-	
	CEE 230V 3P 63A	-	-	3	
	*230V 3P 16A	2	2	-	



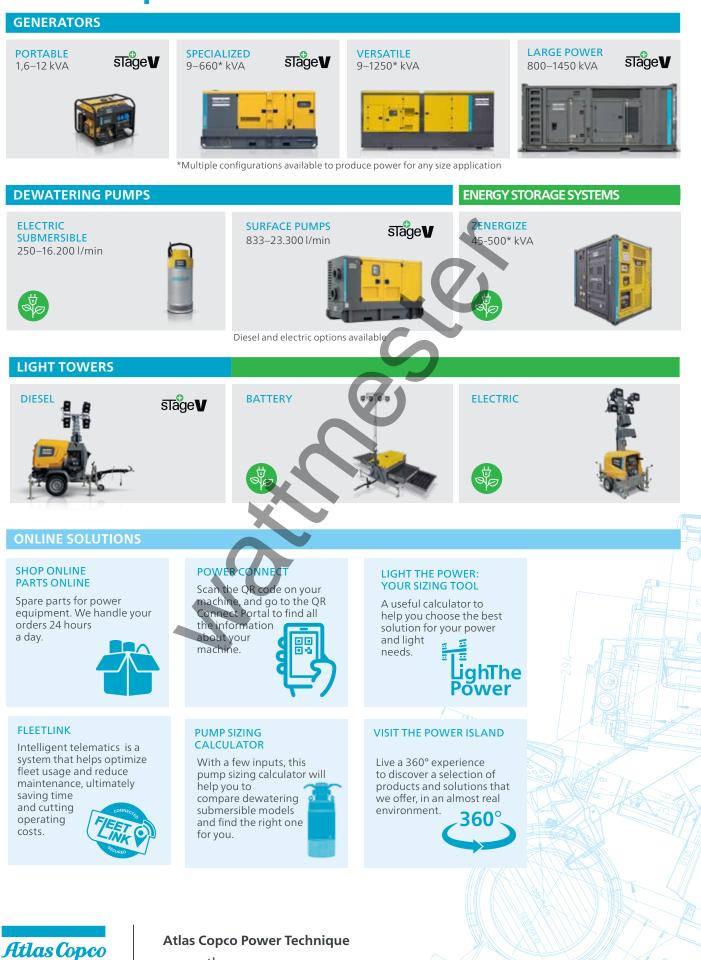


OP2 for ZBP45

\*CEE, RIM and PIM available

# 2958 2380 00 v02 © Atlas Copco Power and Flow division. 2022

# **Product portfolio**



www.atlascopco.com