

## Technical specifications

ZenergiZe

# ZBP45-60

Voltage: 400/230 V

Frequency: 50HZ



ZBP45-75 for reference

## General description

Modular energy storage system designed to meet the requirements of applications such as rental, events and telecom. Ideal for any metropolitan job or event. Based in lithium ion batteries, this portable product is ready to supply power, working in island mode or a hybrid solution together with a diesel generator. Giving flexibility to the final product with a list of options such as solar panel connection to increase its sustainability or cold weather kit for the most critical environments.

A greener solution for a more efficient performance.

## TECHNICAL INFORMATION

Rated power	kVA	45
Rated energy storage capacity	kWh	60
Net energy storage capacity*	kWh	54
Rated voltage (50Hz)	VAC	400 / 230
Battery rated voltage	VDC	48
Rated current discharge	A	65
Recharge time 100% rated power	h	2,3
Depth of discharge (DoD%)	%	80%
Total energy through output up to	MWh	200
End of Life (EoL%)	%	70%
Battery type		Lithium Ion phosphate LiFePO4
Operating temperature**	°C	-10 to 50
Dimensions (L x W x H)	mm	1450 x 1160 x 1900
Weight	kg	1550
Sound pressure level (7 meter)	dB(A)	<70

The standard reference conditions are: 25 °C, 100 kPa and 30% relative humidity. For nominal values efficiencies, deratings and DoD are not considered and tested parameter related to PF=1. \*Due to use this may decrease

\*\*Options for Cold weather (heaters) might be needed. Atlas Copco will keep the rights to change any data when necessary due to any reason.

EN-IEC 61000, EN-IEC 60335, EN-IEC 60335, EN-IEC 62109, EN 55014, UL1741, IEEE1547, UL1741, UL9540, NEMA250, ADR class 9, UN 3536, CE, NEN3140, NEN3840, ISO9001, ISO14001, Low Voltage Directive 2014/35/EU, EMC directive 2014/30/EU

## Batteries

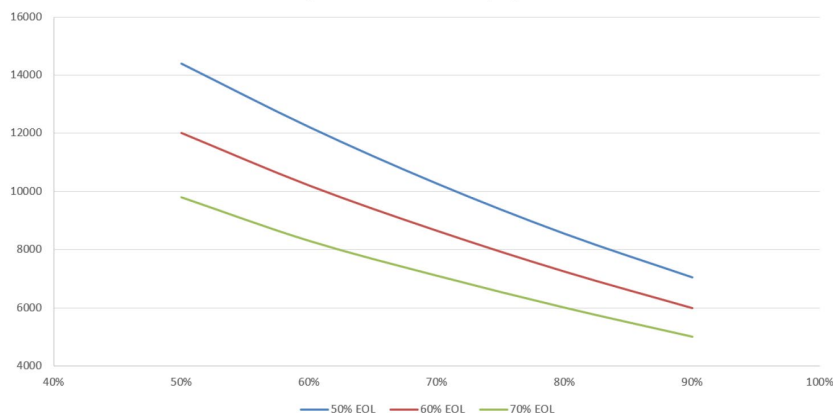
Lithium-iron-phosphate (LiFePO<sub>4</sub> or LFP) is the safest of its family. Also does not need to be fully charged to perform correctly. Service life even slightly improves in case of partial charge instead of a full charge. This is a major advantage, in addition, its wide operating temperature range, excellent cycling performance, low internal resistance and high efficiency.

LFP is therefore the chemistry of choice for very demanding applications

Quantity	12	C-rate discharge	1 C
Rated voltage (VDC)	48	Weight (kg)	39
Rated capacity* (Ah)	100	Expected cycle life (@DoD,EOL,25°C)	6000
Rated capacity* (Wh)	4800	Standards	IEC62619, IEC63056, CE, UN38.3, UL1973, UKCA

\*@25°C

Cycle Life VS DOD @ varying EOL



### Terms:

**SOC%:** State of Charge, measures the remaining energy content in a battery

**SOH%:** State of Health, ratio of the recharging capacity, compared to a new battery

**DOD%:** Depth of discharge, defines the energy consumed in the battery

**Cycle:** Complete charge and discharge of its usable energy stored (DoD%)

**EoL%:** End of life, SOH is at this value

## Inverter

Power electronics that combines inverter and charger. It is needed to transform the energy supply from batteries (DC) to the loads (AC) with or without additional sources as diesel generators or grid.

Quantity	3	Peak efficiency %	96%
Input DC voltage range (VDC)	38 - 66	Peak power %	130%
Rated apparent power (kVA)	15	Maximum power time (min)	30
Rated active power (kW)	12	Power factor	-1...1

Nominal values for standard conditions and performance

## Controller and performance

ECO Energy controller optimizer, provides intuitive control and monitoring for all batteries and power electronics integrated in the battery pack. A highly customizable start/stop system. Use state of charge, voltage, load and other parameters. Define a special set of rules for quiet times, and optionally a monthly test run.

Discharge autonomy 100% / 75% rate power (h)	1,3 / 1,8	Generator size recommended	45-120 kVA
Discharge autonomy 50% / 25% rated power (h)	2,7 / 5,3	Derating Temperature	> 30 °C
Maximum auxiliary consumption (kW)	5,4	Heating & Cooling	Heaters* / Air cooled
Maximum passthrough current (A)	100	Monitoring & GPS	Yes

\* Option

Nominal values for standard conditions and performance

