

## CONTENT

ABOUT US	4-5
LIFEPO BATTERIES	6-11
AES eBike battery Classic LongLife AES eBike battery 2.0 LongLife AES eBike battery Carrier LongLife AES Power Pack LongLife	8 9 10 11
NMC BATTERIES	12-15
AES eBike battery Classic HighPower AES eBike battery Carrier HighPower	14 15
ACCESSOIRES	16-23
AES charger AES charging modules AES charging cabinet AES Power Switchboxes AES Battery-holder	18-19 20 21 22 23
AES FLEET MANAGEMENT	24-25
BATTERY RENTAL	26-27

## INNOVATIVE PRODUCTS FROM OUR OWN DEVELOPMENT AND PRODUCTION

AES PRODUCT DEVELOPMENT & CONSULTING - WE FIND SOLUTIONS



The diverse product portfolio of AES Akku Energie Systeme GmbH is the result of years of development work and a corporate philosophy. Our focus is on the solution-oriented and close cooperation with you as our partner.

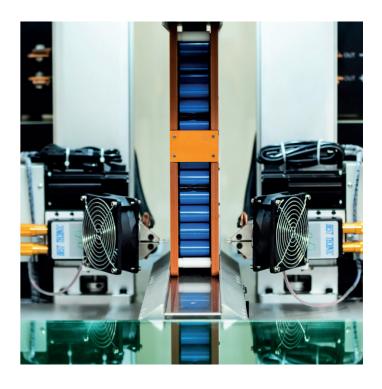
From conception to production to certification: For us, maximum product quality and the highest maximum product quality and highest customer satisfaction are our top priorities.

We support you as an active consulting partner in the development, implementation and optimization of your last mile delivery projects. For years, we have been working with Europe's largest logistics companies to improve structures, products and applications at the highest level. Through our own successes and failures, we know what works and what does not. Based on our practical experience, we can identify potential sources of error that other providers fail to recognize. From the idea to the package delivery. Thanks to our proven expertise we can support you at every level. Save time, money and nerves.

## INVENTIVENESS OF THE HIGHEST INDUSTRY QUALITY.

Since 2012, the visionary AES engineering team with founders Lars Hillermann and Matthias Behlke has been writing one exciting chapter after another in the field of e-mobility. We design, produce and market a wide range of products based on LiFePO4 and NMC cell technologies developed in-house.

We manufacture our products according to the highest safety and industry standards - Made in Germany.



### OUR HIGH-QUALITY PORTFOLIO - YOUR ADVANTAGES

We provide you with mobile, robust and powerful energy storage systems. AES Akku Energie Systeme GmbH also offers you a first-class all-round service with the AES charging infrastructure and AES fleet management.

The trouble-free operation and profitability of our products is one of our trademarks. Our modern product portfolio convinces with a complaint rate of < 0.1 %.

PAGE 5

## LIBNGLIFE LIFEPO4 BATTERIES

We provide you with powerful and reliable energy storage systems that make your eBike fleet significantl more profitable.

AES LiFePO4 batteries LongLife were developed for the toughest use in the logistics sector and convince with high robustness and economic efficiency. They are based on the extremely safe lithium iron phosphate technology and are also increasingly used in the consumer sector.

Learn more about our durable and sustainable AES LiFePO4 eBike batteries LongLife.

AES EBIKE BATTERY CLASSIC LONGLIFE 36 V	PAGE 8
AES EBIKE BATTERY 2.0 LONGLIFE 36 V / 48 V	PAGE 9
AES EBIKE BATTERY CARRIER LONGLIFE 36 V / 48 V	PAGE 10
AES DOWED DACK LONGLIEF 36 V / 48 V	DAGE 11



PAGE 6 PAGE 7

## AES EBIKE BATTERY CLASSIC

**L**BNGLIFE

36 V





#### ROBUST. DURABLE. SAFE.

Mobile energy for your eBike fleet. Extremely safe and reliable. Developed for the toughest use in the logistics sector - proven 40,000 times by customers.

Battery technology used: Lithium iron phosphate (LiFePO4).

The AES eBike Battery Classic 36 V is also available as NMC HighPower version - see page 14.

**Product variants:** 

AES eBike battery Classic LongLife 36 V / 16,5 Ah Article no. AESEA3616.5??X AES eBike battery Classic LongLife 36 V / 19 Ah Article no. AESEA3619.0??X

#### **KEY FEATURES**

- · Long service life, proven to last at least 2,500 charging cycles (corresponds to approx. 8 years with daily use).
- Short charging time possible
- High range
- Extremely robust
- Safe (no thermal runaway)
- Cold resistant
- Compatible with AES fleet management
- Battery management system (BMS)
- Color variants can be realized according to customer requirements

#### **ENVIRONMENTALLY FRIENDLY**

- Cobalt-free
- Made of robust, recyclable plastic
- Up to 4 times longer life compared to other battery technologies
- Reduction of your CO2 emissions

#### **TECHNICAL FEATURES**

- Capacity:
  - AES eBike Battery Classic LongLife 36 V: 16.5 Ah AES eBike Battery Classic LongLife 36 V: 19 Ah
- AES eBike Battery Classic LongLife 36 V: 594 Wh AES eBike Battery Classic LongLife 36 V: 684 Wh
- · Cell type: LiFePO4
- Dimensions:
  - AES eBike Battery Classic LongLife 36 V: L x W x H: 436 mm x 177 mm x 98 mm

## AES EBIKE BATTERY

**L**BNGLIFE

36 V and 48 V





MODERN. POWERFUL. INNOVATIVE.

Mobile energy for your eBike fleet in a modern design. Lightweight and flexible to use. This further development is based on the same successful technology as the AES eBike Battery Classic: lithium iron phosphate (LiFePO4).

Product variants:

AES eBike battery 2.0 LongLife 36 V / 15 Ah Article no. AESEA3615.0CGX AES eBike battery 2.0 LongLife 48 V / 15 Ah Article no. AESEA4815.0CGX

#### **KEY FEATURES**

- Long service life, proven at least 2,500 charging cycles (corresponds to approx. 8 years with daily use)
- Very robust and safe (no thermal runaway)
- Extremely reliable and short charging time possible
- Easier to repair: cells can be replaced individually
- With easy-to-read LCD display: e.g. the charge status is displayed in percent
- Can be flexibly installed vertically and horizontally on the vehicle
- Smart BMS compatible with AES fleet management and CAN bus
- Color variants can be realized according to customer requirements
- cold resistant

#### **ENVIRONMENTALLY FRIENDLY**

- Cobalt-free
- Made of robust, recyclable plastic
- Up to 4 times longer lifetime compared to other battery technologies
- Reduction of your CO2 emissions

#### **TECHNICAL FEATURES**

- Rated voltage: 36 V DC / 48 V DC
- AES eBike battery 2.0 LongLife 36 V: 15 Ah A ES eBike Battery 2.0 LongLife 48 V: 15 Ah
- - AES eBike battery 2.0 LongLife 36 V: 540 Wh AES eBike battery 2.0 LongLife 48 V: 720 Wh
- Cell type: LiFePO4
- · Dimensions:

36 V - L x W x H: 336.3 mm x 157 mm x 83 mm 48 V - L x W x H: 425 mm x 157 mm x 83 mm

PAGE 9 PAGE 8

## AES EBIKE BATTERY CARRIER

**L**BNGLIFE

36 V and 48 V





#### SUSTAINABLE. COMPACT. FULL OF ENERGY.

The handy energy supplier for more riding fun in a flat, modern design. Our innovative new development is the first and only LiFePO4 luggage carrier battery currently available on the market. The battery is securely installed under the luggage carrier with the associated docking station, which is available in 2 equipment variants.

The AES eBike Battery Carrier 36 V / 48 V is also available as an NMC HighPower version - see page 15.

Product variants:

AES eBike battery Carrier 36 V
Article no. AESEC3611.4CGB
AES eBike battery Carrier 48 V
Article no. AESEC48X7.6CGB
AES eBike battery Carrier Dockingstation easy
Article no. AESDSE36.48CGD
AES eBike battery Carrier Dockingstation smart
Article no. AESDSS36.48CGD

#### **KEY FEATURES**

- Robust and safe (no thermal runaway).
- Extremely reliable
- Long life, proven to last at least 2,500 charge cycles (equivalent to about 8 years of daily use)
- Cold resistant
- The corresponding docking station is available in 2 versions:
- Docking station easy, which allows easy, secure installation of the battery on the bike and is lockable. Charging takes place externally.
- Docking station smart, which also allows the battery to be charged directly on the bike as well as the accommodation of other structural components (e.g. motor controller).
- With easy-to-read LCD display: e.g. the charging status is displayed in percent
- Smart BMS: compatible with AES fleet management and CAN bus
- Color variants can be implemented according to customer requirements

#### **ENVIRONMENTALLY FRIENDLY**

- Cobalt-free
- Made of robust, recyclable plastic
- Up to 4 times longer life compared to other battery technologies
- Reduction of your CO2 emissions

#### **TECHNICAL FEATURES**

- Rated voltage: 36 V DC
- Capacity:

AES eBike battery Carrier 36 V: 11.4 Ah AES eBike Battery Carrier 48 V: 7.6 Ah

- Energy:
- AES eBike battery Carrier 36 V: 410 Wh AES eBike battery Carrier 48 V: 365 Wh
- Cell type: LiFePO4
- Dimensions:

With docking station easy: L x W x H: 414 mm x 155 mm x 73 mm.

With docking station smart: L x W x H: 485 mm x 155 mm x 73 mm

L x W x H: 485 mm x 155 mm x /3 mm Without docking station:

L x W x H: 320 mm x 155 mm x 73 mm

## AES POWER PACK

**L**BNGLIFE

UP TO **420.000**KM

36 V and 48 V





POWERFUL. SAFE. RELIABLE.

This very robust and ultimate powerful energy storage for your eCargo fleet comes in a modern battery case design. This new development for the heavy-duty cargo sector is based on our outstanding experience with the same, innovative technology that we also use for the AES eBike Akku Classic and eBike Akku 2.0: Lithium Iron Phosphate (LiFePO4).

Product variants:

AES Power Pack LongLife 36 V / 15 Ah Article no. AESPA3630.0XXX AES Power Pack LongLife 48 V / 15 Ah Article no. AESPA4830.0CGX

#### **KEY FEATURES**

- Available in product variants 36 V and 48 V
- Robust and safe (no thermal runaway)
- Extremely reliable and short charging time possible
- Cold resistant
- Long service life, proven to last at least 2,500 charging cycles (equivalent to 8pprox.. 8 years of daily use)
- Easier repair: cells can be replaced individually
- With easy-to-read LCD display: e.g. the charge level is displayed as a percentage
- Can be flexibly installed vertically and horizontally on the vehicle
- Smart BMS compatible with AES fleet management and CAN bus
- Color variants can be realized according to customer requirements

#### **ENVIRONMENTALLY FRIENDLY**

- Cobalt-free
- Made of robust, recyclable plastic
- Up to 4 times longer lifetime compared to other battery technologies
- Reduction of your CO2 emissions

#### **TECHNICAL FEATURES**

- Rated voltage: 36 V DC / 48 V DC
- Capacity: AES Power Pack 36 V: 30 Ah AES Power Pack 48 V: 30 Ah
- Energy:
   AES Power Pack 36 V: 1,080 Wh
   AES Power Pack 48 V: 1,440 Wh
- Cell type: LiFePO4
- Dimensions:

36 V – L x W x H: 400 mm x 268 mm x 89 mm 48 V – L x W x H: 400 mm x 268 mm x 89 mm

PAGE 10 PAGE 11

# H#GHPOWER NAC BATTERIES

We provide you with extremely powerful and compact energy storage units for your cargo bike fleet and recreational sector.

AES NMC batteries HighPower are the energy supplier of choice for eBikes and pedelecs in the consumer sector due to their maximum energy density and design-friendly construction in the smallest possible space.

Learn more about our powerful AES NMC batteries HighPower, which convince with high capacity, low weight, short charging times and easy handling.

AES EBIKE BATTERY CLASSIC HIGHPOWER 36 V / 48 V PAGE 14

AES EBIKE BATTERY CARRIER HIGHPOWER 36 V / 48 V PAGE 15



PAGE 12 PAGE 13

## AES EBIKE BATTERY CLASSIC

H/GHPOWER

36 V and 48 V





#### ENERGETIC. INDIVIDUAL. ROBUST.

Maximum power for your fleet and for recreational use. Our logistics classic in an urban industrial look offers almost limitless riding fun with an exceptionally high energy of over 1,000 watt hours.

The AES eBike Battery Classic is also available as an LiFePO4-LongLife 36 V version - see page 8.

Product variants:

AES eBike battery Classic HighPower 36 V / 25 Ah Article no. AESEN3625.0XXX

AES eBike battery Classic HighPower 48 V / 20 Ah Article no. AESEN4820.0XXX

#### **KEY FEATURES**

- Extremely high energy density with at least 800 full charging cycles
- Maximum power in the same space as the eBike battery Classic LongLife
- Stable and extremely robust housing
- Cold-resistant
- Compatible with AES fleet management
- Battery Management System(BMS)
- Equipped with energy-saving LED state of charge indicator
- Color variants can be realized according to customer requirements

#### **USER-FRIENDLY**

- Extremely high capacity at 36 V: 900 Wh / 48 V: 1,008 Wh
- Easy handling
- Quickly retrievable energy
- Extremely stable construction

#### **TECHNICAL FEATURES**

- Rated voltage: 36 V DC / 48 V DC
- Capacity:

AES eBike Battery Classic HighPower 36 V: 25 Ah AES eBike Battery Classic HighPower 48 V: 20 Ah

- Energy:
- AES eBike Battery Classic HighPower 36 V: 900 Wh AES eBike Battery Classic HighPower 48 V: 1,008 Wh
- Cell type: 26650 NMC cells
- · Dimensions:

AES eBike Battery Classic HighPower 36 V / 48 V: L x W x H: 436 mm x 177 mm x 98 mm

## AES EBIKE BATTERY CARRIER

H\*GHPOWER

36 V and 48 V
UP TO 31.500 KM
RANGE



#### DYNAMIC. COMPACT. RELIABLE.

The practical energy supplier for almost limitless driving pleasure in both commuter and leisure traffic. User-friendly, powerful and easy to handle - in a flat, modern design. Very high energy density in a small installation space with up to 540 watt hours.

The AES eBike Battery Carrier  $36\,V$  is also available as an LiFePO4-LongLife  $36\,V$  version - see page 10.

Product variants:

AES eBike battery Carrier HighPower 36 V **Article no. AESEC3615.0CGB** 

AES eBike battery Carrier HighPower 48 V Article no. AESEC4810.0CGB

AES eBike battery Carrier Dockingstation easy **Article no. AESDSE36.48CGD** 

AES eBike battery Carrier Dockingstation smart **Article no. AESDSS36.48CGD** 

#### **KEY FEATURES**

- Extremely high energy density
- Maximum power in a small package
- The corresponding docking station is available in 2 versions:
- Docking station easy, which enables simple, secure installation of the battery on the bike and is lockable. Charging takes place externally.
- Docking station smart, which also allows the charging of the battery directly on the bike as well as the accommodation of other structural components (e.g. motor controller).
- With easy-to-read LCD display: e.g. the charging status is displayed in percent
- Smart BMS Compatible with AES fleet management and CAN bus
- Color variants can be realized according to customer requirements
- Cold-resistant

#### USER-FRIENDLY

- Quickly retrievable energy
- Easy handling
- Lockable
- Can be integrated inconspicuously under the luggage carrier, which remains usable without restriction

#### **TECHNICAL FEATURES**

- Rated voltage: 36 V DC / 48 V DC
- Capacity:

AES eBike battery Carrier HighPower 36 V: 15 Ah AES eBike Battery Carrier HighPower 48 V: 10 Ah

Energy:

AES eBike Battery Carrier HighPower 36 V: 540 Wh AES eBike Battery Carrier HighPower 48 V: 480 Wh

- Cell type: 26650 NMC cells
- · Dimensions:

With docking station easy:
L x W x H: 414 mm x 155 mm x 73 mm.
With docking station smart:
L x W x H: 485 mm x 155 mm x 73 mm
Without docking station:
L x W x H: 320 mm x 155 mm x 73 mm

PAGE 14 PAGE 15

# EBIKE BATTERY ACCESSOIRES

Supply new energy to your individual eBikes, pedelecs as well as your entire fleet. Our reliable charging options are designed to make it possible and and are specially designed to the requirements of your AES batteries. Of course, we can also realize any scaling you may require for all for all AES battery systems. In addition, we provide you with robust holder that securely attach our batteries to your eBike and pedelec frames.

High-quality power switchboxes in different versions optimize the performance of our eBike batteries and are specifically designed to meet your requirements.

Learn more about our individual and efficient accessories.

AES CHARGERS	PAGE 18 - 19
AES CHARGING MODULE	PAGE 20
AES CHARGING CABINET	PAGE 21
AES POWER SWITCHBOXES	PAGE 22
AES HOLDER	PAGE 23



PAGE 16 PAGE 17

### **AES CHARGER**



#### RELIABLE. OPTIMIZED.SAFE.

High quality chargers in different versions – usable for different power ratings of our lithium-battery types. Specially adapted to the needs of the specific AES energy storage device.

Product variants:

AES charger 1,2 A standalone

Article no. AESLGSA42V1.2A

AES charger 2,0 A standalone

Article no. AESLGSA42V2.0A

AES charger 3,0 A standalone **Article no. AESL2SA54V3.0A** 

AES charger 4,0 A standalone for Classic

Article no. AESLGSA42V4.0A

AES charger 4,0 A standalone for 2.0 **Article no. AESL2SA42V4.0A** 

#### **KEY FEATURES**

- Optimal solution for safe charging of your fleet
- Developed for continuous use in the logistics sector
- Easy to use
- Multi-stage charging
- Battery monitoring
- High accuracy
- LED charge level indicator
- Passive cooling
- Long service life due to 100 % dust protection (hermetically sealed housing)
- No noise emissions
- Compact design

#### **AES LCHARGER 1,2 A STANDALONE**

#### TECHNICAL FEATURES

- Compatible with AES eBike battery Classic 36 V
- Power output: 50.4 W
- Output voltage: 42 V / 1.2 A (DC)
- Dimensions: L x W x H: 120 mm x 53 mm x 33 mm



#### **AES CHARGER 2,0 A STANDALONE**

#### **TECHNICAL FEATURES**

- Compatible with AES eBike battery Classic 36 V
- · Power: 83 W
- Output voltage: 41.5 V / 2.0 A (DC)
- Dimensions: L x W x H: 146 mm x 68 mm x 41 mm



#### **AES CHARGER 3,0 A STANDALONE**

#### **TECHNICAL FEATURES**

- Compatible with AES eBike Battery 2.0 48 V,
   AES Power Pack 48 V and AES eBike Battery Carrier 48 V
- Power output: 164 W
- Output voltage: 54.7 V / 3.0 A (DC)
- Dimensions: L x W x H: 183 mm x 85 mm x 44 mm



#### **AES CHARGER 4,0 A STANDALONE**

#### **TECHNICAL FEATURES**

- Compatible with AES eBike Battery 2.0 36 V,
   AES Power Pack 36 V and AES eBike Battery Carrier 36 V
- Power: 166 W
- Output voltage: 41.5 V / 4.0 A (DC)
- Dimensions: L x W x H: 183 mm x 85 mm x 44 mm



#### **AES CHARGER 4,0 A STANDALONE CLASSIC**

#### **TECHNICAL FEATURES**

- Compatible with AES eBike battery Classic 36V
- Power: 166 W
- Output voltage: 41.5 V / 4.0 A (DC)
- Dimensions: L x W x H: 183 mm x 85 mm x 44 mm



## AES CHARGING MODULE

1,2 A and 2,0 A





#### SAFE CHARGING IN THE SMALLEST SPACES.

Our robust solution for the synchronous charging of up to 4 energy storage units of one AES battery type.

If you want to operate 2 to 3 charging modules in parallel on one circuit, it is necessary to install them on the base of an AES charging cabinet. This way you can charge your AES batteries safely and in a space-saving manner.

Product variants:

AES charging module 1,2 A
Article no. AESLM1.2A001??
AES charging module 2,0 A
Article no. AESLM2.0A001??

#### **KEY FEATURES**

- Single module with 4 battery charging slots
- For tidy charging of your AES batteries
- Robust metal construction
- Optimal use of space: work safety in the smallest space
- Individually lockable
- With practical nameplate for each compartment
- Temperature monitored (optional)
- Individual design and color variants possible
- Also available as a complete charging cabinet consisting of 2 to 3 charging modules á 4 battery charging slots (with 8 to 12 battery charging places in total) and a base frame.

#### TECHNICAL FEATURES

- Input voltage: 230 V / 50 Hz (AC)
- Mains connection: 230 V / 50 Hz 16 A safety socket
- Equipment variants for different AES batteries available according to customer requirements
- Working temperature: 5 °C 35 °C
- 1 single module with 4 battery charging places (dimensions: H x W x D: 340 x 660 x 520 mm)

## AES CHARGING CABINET

1,2 A and 2,0 A





#### THOROUGHLY THOUGHT OF DOWN THE SMALLEST DETAIL.

Our intelligent indoor solution for the safely charging your your AES eBike batteries.

A charging cabinet consists of a base frame and 2 to 3 charging modules á 4 battery charging places. If you want to operate 2 or 3 modules in parallel on one circuit, the installation on a base frame is necessary. The AES inrush current limiter prevents the circuit fuse from tripping. This ensures that that your batteries are charged on time.

Product variants: AES charging cabinet 1,2 A **Article no. AESLS1.2A003??** 

AES charging cabinet 2,0 A Article no. AESLS2.0A003??

#### **KEY FEATURES**

- Modular design: 2 to 3 charging modules + base frame: with 8 to 12 battery charging stations
- Temperature monitored (optional)
- AES inrush current limiter
- Robust metal construction
- Optimal use of space
- Compartments with doors individually lockable
- LED charge status indicator for each compartment
- Optimal solution for protection and safety at your workplaces
- Individual design and color variants possible
- Depending on the design, the simultaneous operation of up to 3 charging cabinets on one circuit is possible (with 36 battery charging stations).

#### **TECHNICAL FEATURES**

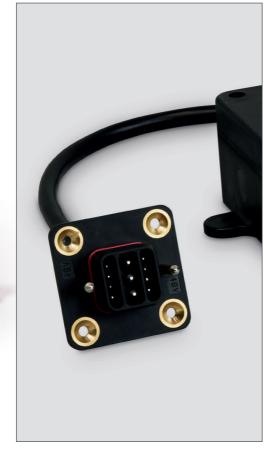
- input voltage: 230 V
- Mains connection: 230 V / 16 A 50 Hz power socket
- Equipment variants for different AES batteries available according to customer requirements
- working temperature: 5 °C 35 °C
- Charging cabinet complete with 3 modules + base frame: Dimensions: H x W x D: 1625 mm x 660 mm x 520 mm
- Loading cabinet with 2 modules + underframe: Dimensions: H x W x D: 1285 mm x 660 mm x 520 mm

PAGE 20 PAGE 21

## AES POWER SWITCH BOX

## AES BATTERY HOLDER









#### THE RANGE BOOSTER.

Our Power Switchboxes enable the parallel, efficient use of two batteries on one load - a key requirement for the operation of e-bikes. Available for the LongLife and HighPower variants of the AES eBike battery. Enables the use with all eBike and pedelec motor systems.

Installed in the vehicle, our power switchboxes ensure that the battery performance and lifetime is optimized during operation by parallel, even discharge of the battery. It also supports the temperature regulation of the batteries in hot and cold conditions.

Product variants:

AES Power Switchbox for Battery Classic LongLife 36 V **Article no. AESPS365.0XXXX** 

AES Power Switchbox for Battery Classic LongLife 48 V

Article no. AESPS485.0XXXX AES Power Switchbox 3.3 36 V

Article no. AESPS363.3XXXX

AES Power Switchbox 6.0 CAN-Bus 36 V / 48 V

Article no. AESPS366.0XXXX AES Power Switchbox 2.0 36 V

Article no. AESPS36HI2.0XX

AES Power Switchbox 2.0 48 V

Article no. AESPS48HI2.0XX

#### **KEY FEATURES**

- Smart energy hub
- Can be used as downstream BMS (Battery Management System)
- Communicates the average power value of the connected batteries to the motor controller

#### TECHNICAL FEATURES

- Checking the voltages of connected batteries
- Cyclic switching between batteries every 30 seconds
- Mutual decoupling of the accumulators
- Dimensions: H x W x D: 1285 mm x 660 mm x 520 mm

#### SAFE, ACCURATE INSTALLATION.

We provide you with robust, individual mounts for the AES eBike Battery Classic, AES eBike Battery 2.0 and AES Power Pack. Durable and easy to handle.

The housings are made of plastic or metal - perfectly designed for the intended use. This way you can safely install our AES batteries securely to your eBike and Pedelec frame.

Product variants:

AES battery holder for AES eBike battery Classic **Article no. AESAHCP001??XX** 

AES battery holder for AES eBike battery .0 36 V  ${\bf Article\ no.\ AESAHCP004CGXX}$ 

AES battery holder for AES eBike battery 2.0 48 V Article no. AESAHCP005??XX

AES battery holder for AES Power Pack Article no. AESAACP007XXXX

#### **KEY FEATURES**

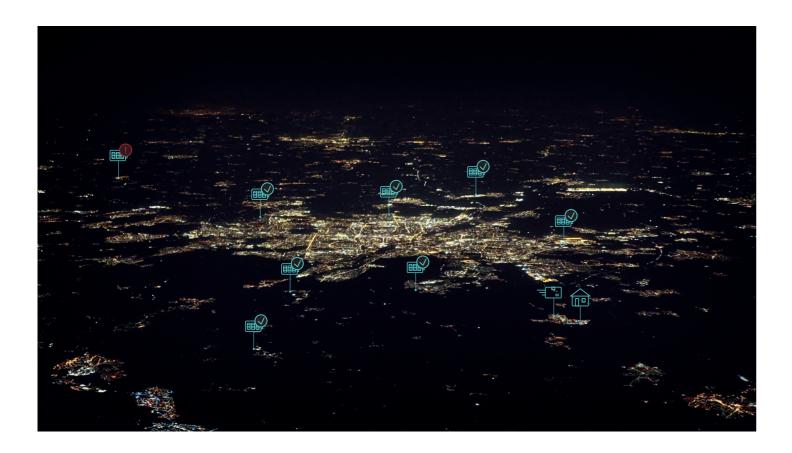
- Designed for continuous use in logistics
- Perfectly adapted to the respective battery type
- Robust and durable
- Zero tolerance even after many years of use
- Solid ABS plastic or metal according on your needs

#### **TECHNICAL FEATURES**

- AES Battery Mount Classic
   L x W x H: 378 mm x 190 mm x 127 mm
- AES battery holder 2.0 36 V
   L x W x H: 335 mm x 172 mm x 97 mm
- AES battery holder 2.0 48 V
   L x W x H: 422 mm x 172 mm x 97 mm
- AES battery holder Power Pack
   L x W x H: 444 mm x 324 mm x 110 mm

PAGE 23

## AES FLEETMANAGEMENT



#### INNOVATIVE. EFFICIENT. LIVE.

Our cloud-based IoT platform provides you with live and information about the condition and location of your batteries.

If defects are detected or for anti-theft purposes, they can be switched off automatically. Continuous analysis of the transmitted battery data is carried out via the mobile communications network. In this way we optimize efficiency, safety and service oriented maintenance.

Product variants: **AES Fleet Management** 

Article no. AESFM00001XXXX



#### **HEALTH STATUS**

- state of charge
- charge capacity
- remaining life
- Number of charging cycles
- Condition of Lithium cells
- Accident prevention
- Creation of statistics



#### THEFT PROTECTION

- activity radius define yourself
- simply switch off battery (optional)
- Locate the battery
- GPS replay function



#### TRACK AND TRACE

- Via IoT tracking
- Planning of delivery routes

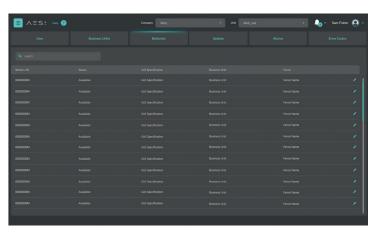


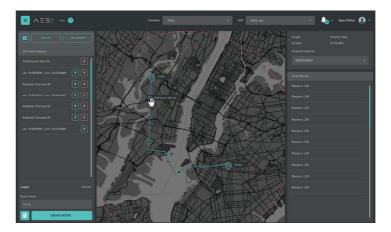
#### **COST OPTIMIZATION**

- Planning reliability through predictive maintenance
- No purchase ofreserve batteries necessary
- · Maximum service life

Use the AES fleet management system to manage your your eBike / Pedelec fleet and integrate it into your company programs via API interface, or use the AES fleet management as shown. According to your needs we create with you an user interface that not only makes your work easier but also lowers your administrative costs.

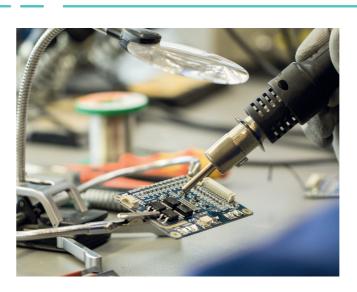
With the help of the AES Fleet Management you can manage your fleet digitally without the need for an external server as all technical data is directly stored in the aws cloud and managed from there. This is a security factor that is second to none.





In our cloud system, the received information is processed and stored in a database. This offers you an overview of all your batteries and you can quickly and easily view the status and usage history of all batteries and evaluate them statistically.

The GPS data of the battery pack are also processed and thus enable the battery pack to be tracked via a map. a map. Route planning and geofencing are parameters implemented via the cloud connection and used for their their benefit are used. Furthermore, it is also possible to history can be checked by means of the GPS track replay function, in compliance with the applicable data protection regulations.



- Determination of the state of charge (SOC) and the state of health (SOH) of the battery
- Recording of usage statistics
- Exchange of data via the Molbil radio network
- Data security guaranteed by latest cloud server technology
- Transmission of GPS data for tracking the battery
- Predictive maintenance
- Over-the -air (OTA) supported error detection

**PAGE 25 PAGE 24** 

## AES BATTERY RENTAL



#### BATTERY AS A SERVICE.

Do you need secure, mobile energy for your eCargo fleet with low investment costs and administration effort?

We at AES Akku Energie Systeme GmbH rent out a wide range of long-life, high-performance rechargeable batteries, which we deliver ready for operation 24/7. Anytime and fast - including maintenance, repair, full-service consulting and support.

In addition, we offer a complete charging infrastructure. Our batteries are extremely robust and reliable. The very low complaint rate of < 0.1 % speaks for itself. In the rare case of a defect, we will of course send you a replacement immediately.

Use our advantages for your benefit: We guarantee an extremely low failure rate due to perfectly matched products. In addition, the technology used and the full service of the AESbattery rental ensures high profitability and sustainability.

Benefit from our expertise! So that you can enjoy your last mile delivery, bike sharing or delivery service projects.

Our specialists are of course available to advise you.

#### YOUR ADVANTAGES

- Quick and easy rental
- Continuously secured energy supply for your eCargo fleet
- Battery rental possible with or without IoT tracking on request
- Should it ever be necessary, we guarantee immediate, ready-for-use replacement
- High profitability and planning security by reducing of investment costs
- Individual quantities (also smallest quantities) are available for rent

### RENTAL PRICES January 2022

	Running time in months					
	24	36	48	60	72	
AES eBike Battery Classic 36 V 16,5 Ah	19,10€	14,90€	13,10€	12,30€	12,00€	
AES eBike Battery Classic 36 V 19,0 Ah	19,80€	15,40€	13,50€	12,80€	12,40€	
AES eBike Battery 2.0 36 V	16,90€	13,20€	11,70€	10,90€	10,70€	
AES eBike Battery 2.0 48 V	21,30€	16,70€	14,60€	13,80€	13,40€	
AES eBike Power Pack	33,70€	26,20€	23,10€	21,70€	20,80€	
AES Charger 1,2 A (42 V for 36 V System)	6,00€	6,00€	6,00€	6,00€	6,00€	
AES Charger 2,0 A (42 V for 36 V System)	7,00€	7,00€	7,00€	7,00€	7,00€	
AES Charger 3,0 A (42 V for 36 V System)	8,00€	8,00€	8,00€	8,00€	8,00€	
AES Charger 3,0 A (54,6 V for 48 V System)	8,00€	8,00€	8,00€	8,00€	8,00€	
AES Charging Module 2,0 A 001 with FI	33,50€	32,00€	29,00€	27,50€	26,50€	
AES Charging Cabinet 2,0 A 003	103,00€	94,00€	86,50€	83,00€	80,00€	

The prices shown refer to a selection of our products, this does not include IoT tracking. As an example, you will find the prices for a minimum order of 500 pieces. For further graduated prices please contact us directly - we will find the optimal set up for you and your needs. Quantities, prices, and runtimes - let's talk about it. A minimum runtime of 24 months applies. The rental offer only applies to Germany and Spain.



PAGE 26 PAGE 27



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