



Battery Energy Storage

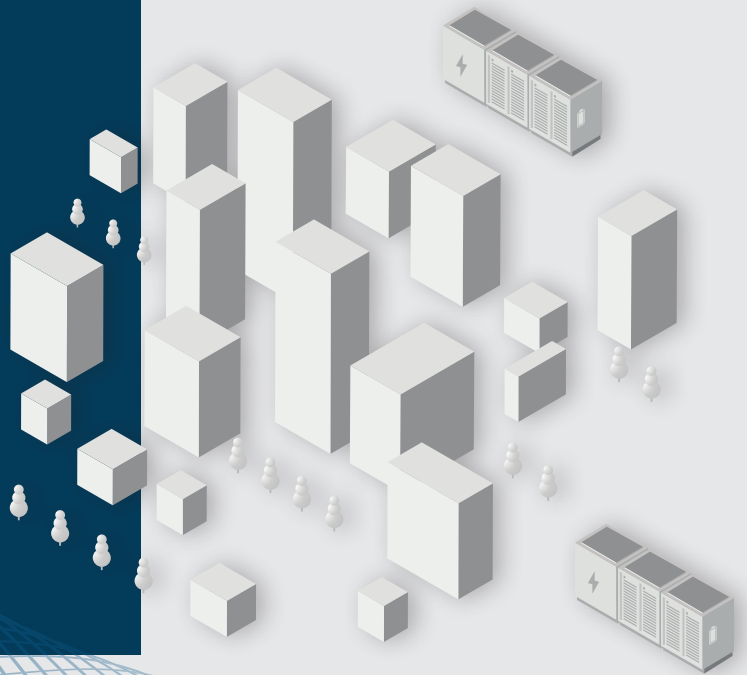
Empowering data
communication in
your BESS

We enable reliable data communication

Modern battery energy storage systems combine networked components from many different vendors and are themselves part of a networked smart grid environment. Communication and intelligent networking are the key to efficient operation and seamless integration into a wide range of applications. With components from HMS Networks you can solve all communication requirements for battery storage systems.

The HMS difference

- One source for communications and networking solutions geared for Industry 4.0
- Expertise with CAN-based systems and various energy and cloud protocols
- Partner for concept development, system design, deployment and support
- Reputable, reliable supplier with global availability
- Seamless international project collaboration



Find out more at
www.ixxat.com/bess

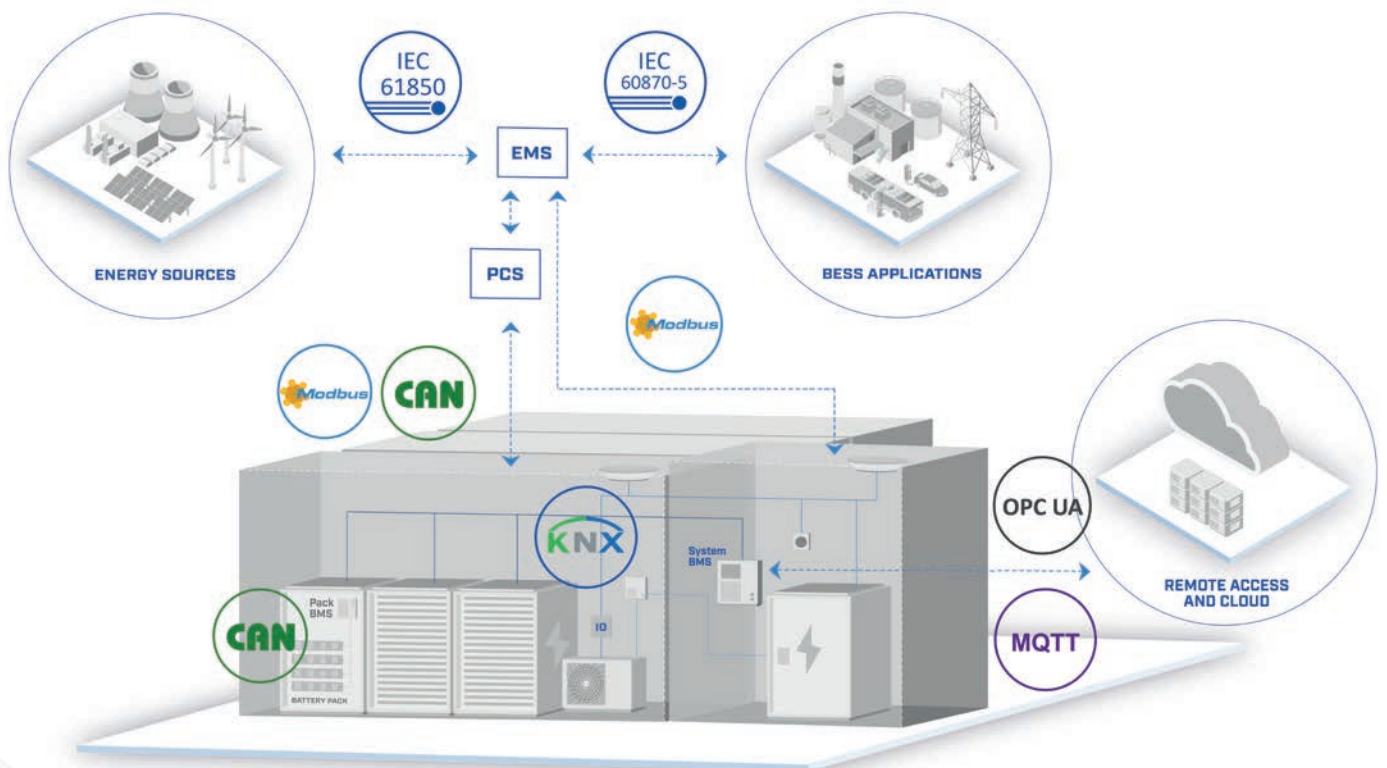


Support for all communication protocols

Gain valuable data and system control

Our solutions interconnect your BESS components reliably and flexibly, no matter what protocol or network technology you use. From CAN-based battery communication to Smart Grid and SCADA connections – and all steps in between – we offer suitable solutions for your application. Link all network levels to obtain valuable data and enable remote

control and monitoring. Combine devices from different industries and take advantage of low prices and proven components, closing the communication gap between building, energy, industry and automotive protocols in your BESS.



Coverage of all relevant application areas

Data and communications experts for BESS

Our unique combination of technology toolbox, applications experience and product development aptitude empowers customers to optimize and protect data communication and interconnection of their battery energy storage systems. HMS Networks products and services can be used for various applications within the BESS environment and, if required, can also be adapted to specific customer needs.



Network design

- Network topologies
- Ancillary systems (fire protection, HVAC)
- Identifier change (2nd life batteries)



Cloud connectivity and IIoT

- Remote data / Device access
- MQTT / OPC-UA
- Smart Grid
- SCADA
- Visualization



System and signal protection

- AC/DC noise protection
- Overvoltage protection



Commissioning and maintenance

- Commissioning support tools
- Condition monitoring, logging and maintenance
- Start-up / Network quality
- Device management / Remote commissioning



Purpose-built solutions

- OEM development
- Network interface implementation
- Brand labeling
- Pre-configured devices

HMS Networks offers products for BESS applications under five brands, covering all application scenarios:

Anybus[®]
BY HMS NETWORKS

Ewon[®]
BY HMS NETWORKS

Intesis[®]
BY HMS NETWORKS

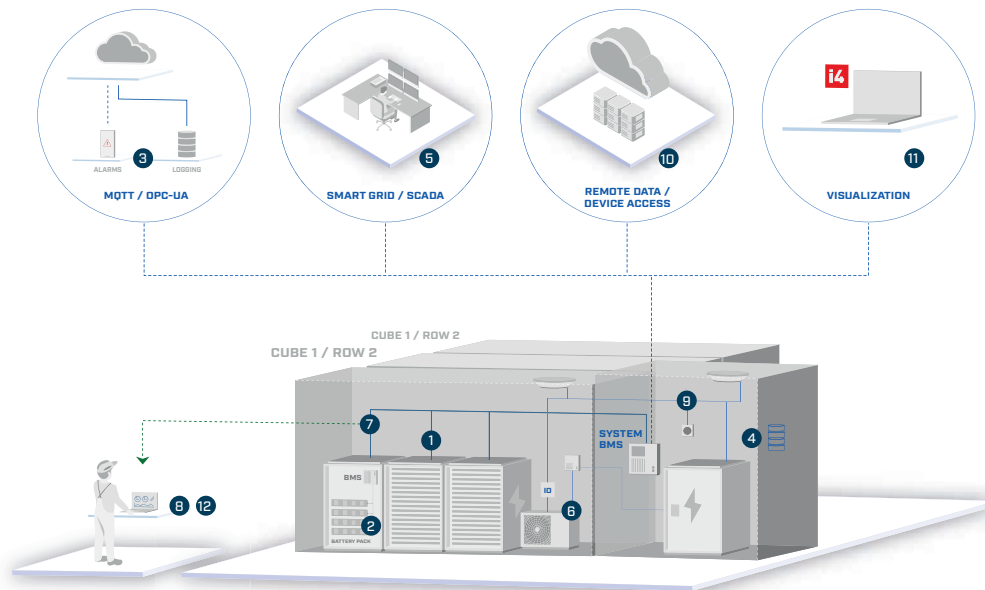
Ixxat[®]
BY HMS NETWORKS

WEBfactory[®]
Member of the HMS group

Wide selection of products and services

Applicable products

Hardware and software solutions



1
Ixxat
CAN Repeater

For galvanic isolation of devices and segments and signal improvement.



2
Ixxat
CAN Bridge

Enables system expansion, tree and star structures, with additional filter and mapping functionality.



3
Ixxat
CAN@net NT

CAN gateway with Ethernet bridge function and MQTT cloud connectivity.



4
Ixxat
CANnector

Multipurpose tool with bridge, gateway, logging function and cloud connectivity.



5
Ixxat
SG-gateway

Energy gateway for combining energy protocols with industrial and cloud applications.



6
Intesis
AC Interface

For connection of AC devices from well-known manufacturers to common field bus systems.



7
Ixxat
USB-to-CAN V2

PC interface for mobile and desktop analysis, configuration and monitoring applications.



8
Ixxat
canAnalyser

Windows based tool for CAN online and offline data analysis with powerful data interpretation.



9
Anybus
X-gateway

Linking of more than 250 different network combinations – easy and without programming.



10
Ewon
Cosy/Flexy

For easy, secure and efficient access to your system, gaining valuable information and insights.



11
Webfactory
Webfactory i4

Solutions for data collection, analysis and visualization – easy operation and system adaptation.



12
Ixxat
CANcheck

Hand-held installation tester for CAN, allows easy wiring, termination and signal testing.

Customer success stories

See how our customers use HMS Networks products in their applications and what problems they solve with them



CAN@net NT

Implementation of a cost-effective solution for monitoring and alarm messages



CAN Repeater

Improvement of a BESS CAN network using drop lines and galvanic isolation



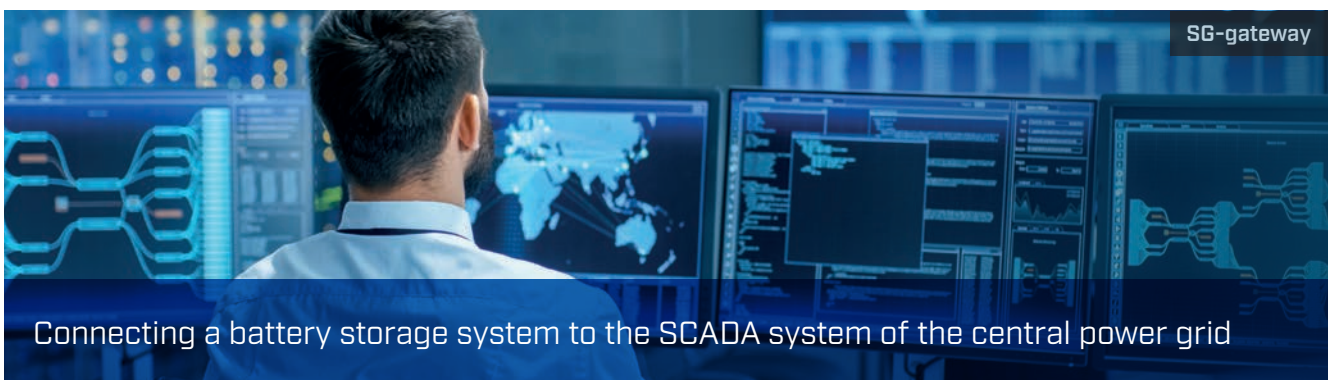
CANbridge NT

Enabling sustainable use of 2nd-life batteries in BESS applications



CANnector

Simple and secure cloud connection of BESS enabling data monitoring and logging



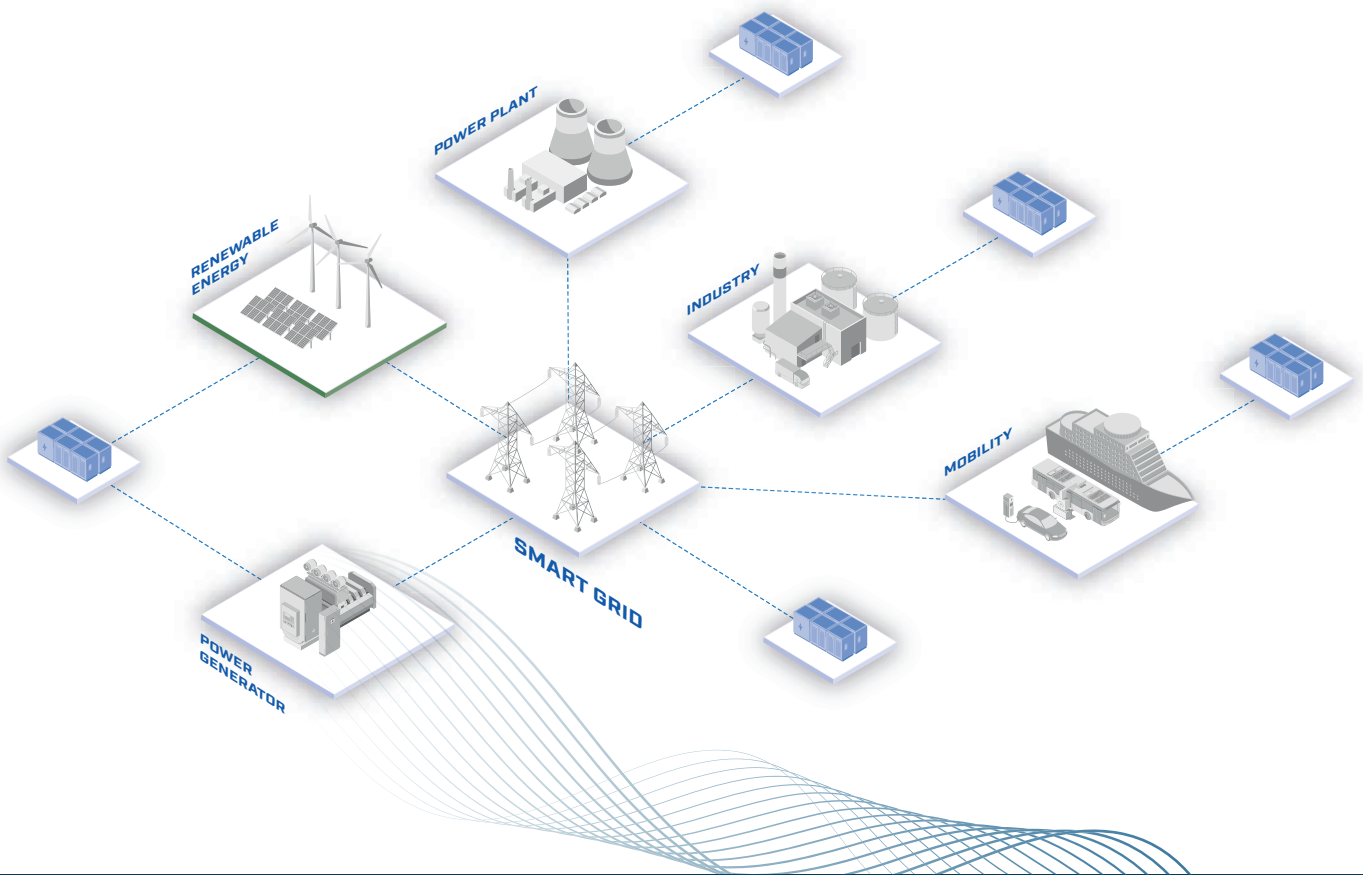
SG-gateway

Connecting a battery storage system to the SCADA system of the central power grid

Find out more on our customer story page on www.ixxat.com/bess

Integrating BESS into Smart Grid applications

HMS Networks products enable communication inside battery storage systems as well as interconnection with the grid



Support for all essential protocols

CAN

CON FD

ASIRAE BACnet

M Bus

KNX

PROFI BUS

PROFI NET

EtherNet/IP

OPC UA

MQTT

IEC 61850

IEC 60870-5-104

dnp

GOOSE

Modbus

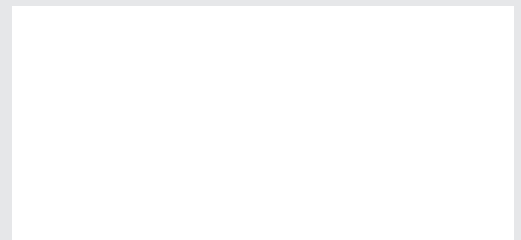
ASCII

Work with HMS.
The number one choice for
industrial communication
and IIoT.

HMS Networks - Contact

HMS is represented all over the world.
Find your nearest contact here:

www.hms-networks.com/contact



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