IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx SEV 15.0022X**

Certificate history:
Issue 0 (2016-06-30)

Status: **Current**

Issue No: 1

Date of Issue: 2023-10-11

Applicant: **Excen S.R.L.**
Via Marcora 61/69
20097 San Donato Milanese (MI)
Italy

Equipment: **Increased Safety and Dust Ex Batteries BS.. and BM.. series**

Optional accessory: ---

Type of Protection: **Flameproof "d", Increased safety "e", Enclosure "t"**

Marking:

Ex eb IIB/IIC T6 / T5 Gb
Ex db eb IIB/IIC T6 / T5 Gb
Ex eb mb IIB/IIC T6 / T5 Gb
Ex mb tb IIIC T80 °C / T95 °C Db
Ex tb IIIC T80 °C / T95 °C Db
Ex db eb mb IIB/IIC T6 / T5 Gb
Ex eb I Mb

Ex ec IIB/IIC T6 / T5 Gc
Ex db/dc ec IIB/IIC T6 / T5 Gc
Ex ec mc IIB/IIC T6 / T5 Gc
Ex mc tc IIIB/IIIC T80 °C / T95 °C Dc
Ex tc IIIB/IIIC T80 °C / T95 °C Dc
Ex db/dc ec mc IIB/IIC T6 / T5 Gc

Approved for issue on behalf of the IECEx Certification Body: **Munira Gamma**

Position: **Manager Product Certification**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins Electric & Electronic Product Testing AG
Luppmenstrasse 3
8320 FEHRALTORF .
Switzerland

eurofins | E&E

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Certificate No.: **IECEx SEV 15.0022X**

Date of issue: 2023-10-11 Issue No: 1

Manufacturer: **Excen S.R.L.**
Via Marcora 61/69
20097 San Donato Milanese (MI)
Italy

Manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

CH/SEV/ExTR15.0024/01

Quality Assessment Report:

FR/INE/QAR11.0011/11

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

BS.. and BM.. series

Dots are replaced by letter or numbers corresponding to the manufacturing variations.
Details see Identification key.

Ex Batteries series BS and BM are intended for use in the industrial plants, on-shore, offshore and/or coal mines and underground workings, with presence of flammable gas and/or combustible dust atmospheres.

Rating:	12 V DC … 500 V DC, max 3000 Ah (C5)
Classification of installation and use:	Fixed or Transportable
Ingress protection:	IP23 to IP66
Rated ambient temperature range (°C):	T6 / T80 °C for Tamb ranging from -60 °C to +65 °C T5 / T95 °C for Tamb ranging from -60 °C to +80 °C

For more Information see Annexe to Certificate

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The battery series BS are only intended for stationary use.

- Batteries made with vented lead acid cells and sealed cells shall not be deep discharged.

- The specific conditions of used components must be observed.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- possible installation of Ex “m” apparatus inside the battery container
- update of marking on drawing
- update drawing
- up-grade of maximum nominal voltage to 500 V
- update list of certified components
- update permitted battery list
- an update to the latest generation of standards
  IEC 60079-0:2017 Ed. 7.0
  IEC 60079-7:2015+AMD1:2017 CSV Ed. 5.1
  IEC 60079-31:2022 Ed. 3.0

Annex:

IECEx SEV 15.0022X Annexe Issue1.pdf

Annexe to: **IECEx SEV 15.0022X** **Issue No.: 1**

Applicant Name: **Excen S.R.L.**

Equipment: **Increased Safety and Dust Ex Batteries**

Description of product

Batteries series BS and BM for mobile and stationary applications are intended for industrial plants, on-shore, offshore and/or coal mines and underground workings, with presence of flammable gas and/or combustible dust atmospheres.
“BS” type: stationary or standby use (e.g. solar systems, wind systems, UPS systems or installed as starter/cranking batteries on stationary engines/machines).
“BM” type: mobile application (e.g. installed as traction batteries or starter/cranking batteries on industrial mobile equipment or machines).
The range of Increased Safety and Dust Batteries include fabricated carbon steel or stainless steel battery containers or battery box and, with the exception of Group I, non-metallic material containers, in which a range of Lead Acid, Ni-Cd, GEL, AGM, vented, valve regulated secondary battery cells and blocks are arranged. With a limit of 25 Ah also sealed GEL and sealed AGM battery cells and blocks may be installed.
The permitted cells or batteries (blocks) are:

- cells/blocks series listed in the manufacturer’s specification documents
and/or
- Ex e, Ex t approved cells/blocks series
and/or
- cells/blocks series manufactured in compliance with the relevant and recognized IEC constructional Standard for battery cell.

Accessories like temperature probe, electrolyte level detector, hydrogen detector, connectors, terminal boxes, breakers or other safety devices, may be installed with a suitably certificate.

There is also the option to fit a suitably Ex “d” or Ex “de” connector to the battery container.

The maximal nominal capacity, may be indicated at different duration discharge from 5 minutes to 120 hours, as defined by the cell/battery manufacturer in the information for use. In this case the nominal capacity value consequently may vary the max indicated value at C5.

For stationary battery the Nominal Capacity value may vary according to constant current discharge value, time of discharge and final voltage value as defined by the manufacturer in the information for use.

A large number of different configurations and shapes of container and connections may be manufactured, within the limits described on the manufacturer’s specification drawings.

For cells and batteries intended to be recharged in hazardous areas, the charging circuits is specified as part of the equipment in safety instruction.

Identification key of batteries:

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B _ _ _ _ _
  | | | | |__|C  = Centralized refilling (only for vented cells/battery blocks)
  | | | |    |M  = Manual refilling (only for vented cells/battery blocks)
  | | | |    |R  = Recirculation system and centralized refilling (only for vented
  | | | |    |     cells/battery blocks)
  | | | |    |W  = Recirculation system and Manual refilling (only for vented
  | | | |    |     cells/battery blocks)
  | | | |
  | | | |____|0  = Connections for single cell or block
  | | |      |1  = Intercell or blocks flexible connections crimped and bolted
  | | |      |     or welded to poles and insulated
  | | |      |2  = Intercell or blocks flexible connections crimped and bolted
  | | |      |     or welded to poles and protected against unexpected contacts
  | | |      |3  = Intercell or blocks rigid connections bolted or welded to
  | | |      |     poles and insulated
  | | |      |4  = Intercell or blocks rigid connections bolted or welded
  | | |      |     to poles and protected against unexpected
  | | |      |     contacts
  | | |      |5  = Intercell or blocks rigid connections bolted or welded
  | | |      |     to poles and insulated by enclosure
  | | |      |6  = Intercell or blocks rigid and flexible connections crimped or bolted
  | | |      |     or welded to poles and insulated
  | | |      |7  = Intercell or blocks rigid and flexible connections crimped or bolted
  | | |      |     or welded to poles and protected against unexpected contacts
  | | |
  | | |______|LA = Lead Acid vented cells/battery blocks
  | |        |NC = Nickel Cadmium vented cells/battery blocks
  | |        |VA = Valve regulated AGM (Absorbed Glass Mat Lead Acid)
  | |        |VG = Valve regulated Gel Lead Acid cells/battery blocks
  | |        |VN = Valve regulated Nickel Cadmium cells/battery blocks
  | |        |SA = Sealed AGM (Absorbed Glass Mat Lead Acid) batteries(blocks)≤ 25Ah only
  | |        |SG = Sealed Gel Lead Acid batteries(blocks)≤ 25Ah only
  | |
  | |_______ |XX = Identification of cell manufacturer (2 character)
  |
  |__________|M  = Mobile applications
             |S  = Stationary applications
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