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EU-Type Examination Certificate

(1)

(2) Equipment or protective system intended for use in potentially explosive atmospheres **- Directive 2014/34/EU**

(3) Certificate number: **SEV 15 ATEX 0163 X**

(4) Product: Increased Safety and Dust Ex Batteries BS.. and BM.. series
Dots are replaced by letter or numbers corresponding to the manufacturing variations. Details see Identification key.

(5) Manufacturer: Excen S.R.L.

(6) Address: Via Marcora 61/69, 20097 San Donato Milanese (MI), Italy

(7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report no 23CH-00512.X03

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018
EN 60079-1:2014
EN 60079-7:2015
EN IEC 60079-7:2015/A1:2018
EN 60079-18:2015
EN 60079-18:2015/A1:2017
EN 60079-31:2014

Except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

Refer to Markings at Appendix.

Eurofins Electric & Electronic Product Testing AG
Notified Body ATEX

Munira Gamma
Product Certification

(13) # Appendix

(14) **EU-Type Examination Certificate no. SEV 15 ATEX 0163 X**

(15) **General product information**

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.
"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, connector, 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/dc" connectors 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.

Markings:
I M2 Ex eb I Mb
II 2G Ex eb IIB/IIC T6 / T5 Gb
II 2D Ex tb IIIC T80 °C / T95 °C Db
II 2G Ex db eb IIB/IIC T6 / T5 Gb
II 2G Ex eb mb IIB/IIC T6 / T5 Gb
II 2D Ex mb tb IIIC T80 °C / T95 °C Db
II 2G Ex db eb mb IIB/IIC T6 / T5 Gb

Ratings:
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
Rated ambient temperature range (°C) for Ex Components:	N/A

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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Detailed information are defined in the manufacturers document Excen technical report.

(16) **Report number** 23CH-00512.X03

(17) **"Special conditions for safe use" / "Schedule of limitations"**
- 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 and devices must be observed.

(18) **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	

(19) **Drawings and Documents**

See test report "Manufacturer's Documents"