



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx SIR 11.0157U issue No.:0 Certificate history:

Status: Current

Date of Issue: 2012-01-27 Page 1 of 4

Applicant: **TAB d.d., Tovarna akumulatorskih baterij**
Polena 6
2390
Slovenia

Electrical Apparatus: **EPzS, EPzV, PzB and PzBV Traction Batteries**
Optional accessory:

Type of Protection: **Increased Safety and Dust Protection**

Marking: EPzV and PzBV:
Ex e I Mb
Ex e IIC Gb
Ex t IIIC Db IP 64

EPzS and PzB:
Ex e I Mb
Ex e IIC Gb
Ex t IIIC Db IP 64

Approved for issue on behalf of the IECEx Certification Body: D R Stubbings BA MIET

Position: Certification Manager

Signature:
(for printed version)

Date:

2012-01-27

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



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Manufacturer: **TAB d.d., Tovarna akumulatorskih baterij**
Polena 6
2390
Slovenia

Manufacturing location(s):

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 electrical apparatus 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 : 2007-10 Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5
IEC 60079-31 : 2008 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
Edition: 1
IEC 60079-7 : 2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition: 4

This Certificate does not indicate compliance with electrical 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:
[GB/SIR/ExTR12.0016/00](#)

Quality Assessment Report:
[SI/SIQ/QAR10.0001/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The EPzS, EPzV, PzB and PzBV are types of lead acid traction cells. The cells have the following ratings

Drawing/Cell Type	Ah rating
B 315 1000 (PzB)	46-864 Ah, 2 V max
B 315 1010 (EPzS)	100-1550 Ah, 2 V max
B 315 1020 (PzBV)	122-340 Ah, 2 V max
B 315 1030 (EPzV)	110-720 Ah, 2 V max
B 315 1040 (EPzS)	300-1550 Ah, 2 V max
B 315 1050 (EPzS)	100-1550 Ah, 2 V max
B 315 1060 (EPzS)	300-1550 Ah, 2 V max
B 315 1070 (PzB)	46-864 Ah, 2 V max

Refer to EQUIPMENT (continued) for additional information

CONDITIONS OF CERTIFICATION: NO

Empty box for conditions of certification.



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EQUIPMENT(continued):

The EPzS and EPzV cells are between 196 mm and 198 mm wide and have 2 to 10 positive plates terminated on 2 or 4 terminal posts. The PzB and PzBV cells are 157,5 mm wide and have 2 to 8 positive plates terminated on 2 terminal posts.

Connection to the cells is via female threaded inserts secured with metallic bolts with insulated covers, which maintain the minimum ingress protection level of IP 64.

All the cells are of similar design and construction, the variation in capacities being achieved by permutations of cell height, cell length and plate number, although the EPzS and PzB are flooded type that require electrolyte being topped up via vent plugs fitted to the top of the cell casing and the EPzV and PzBV are gel type, hence maintenance free.

The EPzS and PzB cells are only to be topped up in a non-hazardous area.

All cells shall be used in an appropriate ventilated battery container.

Schedule of Limitations

The User/Installer shall comply with the following:

1. The EPzV and PzBV cells shall be used in an appropriate Ex e I Mb/Ex e IIC Gb ventilated battery container.
2. The EPzS and PzB cells shall be used in an appropriate Ex e I Mb/Ex e IIC Gb/Ex t IIC Db ventilated battery container, which maintains an IP 64 ingress protection rating or has facilities that can maintain the IP64 ingress protection rating of the vent plug.
3. These components comply with IEC 60079-7:2007 Clauses 5.7.1 (General), 5.7.1.3 (cells) and 5.7.3 (release of flammable gas). When they are assembled into a battery, IEC 60079-0:2009 needs to be addressed with particular reference to Clause 26.5.1 (temperature rise), in addition, the remaining Clauses of IEC 60079-7:2007 need to be addressed with particular reference to Clauses 5.7.1.2 (battery containers), 5.7.1.4 (connections), 5.7.4 (charging of cells), 5.7.5 (discharge of cells), 5.7.6 (incorporation of other protection concepts), 5.7.7 (disconnection and transportation), 6.6 (secondary battery testing).
4. The cells are intended for use in a maximum service temperature range of -20°C to +95°C.
5. When cells are connected together and housed within a battery container, creepage and clearance distances are to be assessed in accordance with IEC 60079-7:2007, clauses 4.3 and 4.4.
6. The EPzS and PzB cells are only to be topped up in a non-hazardous area.
7. The Cells have the following maximum rated discharge current which shall not to be exceeded:

PzVB (2 terminals)	244 A
EPzV (2 terminals)	475 A
PzB (2 terminals)	500 A
EPzS (2 terminals)	500 A
EPzS (4 terminals)	500 A