



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 10ATEX3255U** Issue: **3**

4 Component: **EPzS, EPzV, PzB and PzVB Traction Batteries**

5 Applicant: **TAB d.d., Tovarna akumulatorskih baterij**

6 Address: **Polena 6
2390
Slovenia**

7 This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012

IEC 60079-7:2015 Ed 5

EN 60079-31:2014

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any special conditions for safe use are listed in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:



I M2
Ex eb I Mb

or



II 2 G D
Ex eb IIC Gb
Ex tb IIIC Db IP 64

Project Number 70022248

C Ellaby
Deputy Certification Manager

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Sira Certification Service
Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom



SCHEDULE

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13 DESCRIPTION OF COMPONENT

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

Drawing	Cell Reference	Ah rating
B 315 1000	2 PzB, 3 PzB, 4 PzB, 5 PzB, 6 PzB, 7 PzB, 8 PzB	46-864 Ah, 2 V max
B 315 1005	9 PzB, 10 PzB, 11 PzB	207-1188 Ah, 2 V max
B 315 1010	2 EPzS, 3 EPzS, 4 EPzS, 5 EPzS, 6 EPzS, 7 EPzS, 8 EPzS, 9 EPzS, 10 EPzS	100-1550 Ah, 2 V max
B 315 1020	2 PzVB, 3 PzVB, 4 PzVB	122-340 Ah, 2 V max
B 315 1030	2 EPzV, 3 EPzV, 4 EPzV, 5 EPzV, 6 EPzV, 7 EPzV	110-720 Ah, 2 V max
B 315 1040	6 EPzS, 7 EPzS, 8 EPzS, 9 EPzS, 10 EPzS, 12 EPzS	300-1860 Ah, 2 V max
B 315 1050	2 EPzS, 3 EPzS, 4 EPzS, 5 EPzS, 6 EPzS, 7 EPzS, 8 EPzS, 9 EPzS, 10 EPzS	100-1550 Ah, 2 V max
B 315 1060	6 EPzS, 7 EPzS, 8 EPzS, 9 EPzS, 10 EPzS, 12 EPzS	300-1860 Ah, 2 V max
B 315 1070	2 PzB, 3 PzB, 4 PzB, 5 PzB, 6 PzB, 7 PzB, 8 PzB	46-864 Ah, 2 V max
B 315 1075	9 PzB, 10 PzB, 11 PzB	207-1188 Ah, 2 V max

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 PzVB 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 PzVB 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.

Variation 1 - This variation introduced the following change:

- i. The label drawing was approved to be replaced with a single drawing incorporating all models and combined certification details.

Variation 2 - This variation introduced the following change:

- i. The product description was updated to add clarity to the cell references covered and to introduce new cells to the range.

Variation 3 - This variation introduced the following change:

- i. Following appropriate assessment to demonstrate compliance with the requirements of the standards listed in section **Error! Reference source not found.**7, the documents previously listed in section 9 of the certificate, EN 60079-0:2009; EN 60079-7:2007 and EN 60079-31:2008, were replaced by EN 60079-0:2012, IEC 60079-7:2015 Ed 5 and EN 60079-31:2014, the marking was updated accordingly.
- ii. The Special Conditions for Safe Use were reviewed and revised.

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Hawarden, CH5 3US, United Kingdom



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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	17 October 2011	R22386A/00	The release of the prime certificate.
1	25 January 2012	R26459A/00	The introduction of Variation 1.
2	04 February 2015	R70004527A	The introduction of Variation 2.
3	08 October 2015	R70022248A	The introduction of Variation 3

15 SPECIAL CONDITIONS FOR SAFE USE

15.1 These cells shall be installed in a ventilated battery container that is suitable for the application and has been appropriately certified by a notified body; in addition, the container used to house the EPzS and PzB cells shall also have an IP 64 ingress protection rating or have facilities that maintain the IP64 ingress protection rating of the vent plug.

15.2 The cells are intended for use in a maximum service temperature range of -20°C to +95°C.

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

15.4 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

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

Certificate Annexe



Certificate Number: Sira 10ATEX3255U

Component: EPzS, EPzV, PzB and PzVB Traction Batteries

Applicant: TAB d.d., Tovarna akumulatorskih baterij

Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
B 315 1000	1 of 1	1	03 Oct 11	2 V 2-8 PzB 46 - 864 Ah
B 315 1010	1 of 1	1	03 Oct 11	2 V 2-10 EPzS 100 - 1500 Ah
B 315 1020	1 of 1	1	03 Oct 11	2 V 2-4 PzVB 122-340 Ah
B 315 1030	1 of 1	1	03 Oct 11	2 V 2-6 EPzV 110 - 720 Ah
B 315 1040	1 of 1	1	03 Oct 11	2 V 6-10 EPzS 300 - 1550 Ah
B 315 1046	1 of 1	0	09 Sept 11	Ex Label, 2V EPzS
B 315 1047	1 of 1	0	09 Sept 11	Ex Label, 2V EPzV
B 315 1048	1 of 1	0	09 Sept 11	Ex Label, 2V PzB
B 315 1049	1 of 1	0	09 Sept 11	Ex Label, 2V PzVB
B 315 1050	1 of 1	0	03 Oct 11	2 V 2-10 EPzS 100 - 1550 Ah
B 315 1060	1 of 1	0	03 Oct 11	2 V 6-10 EPzS 300 - 1550 Ah
B 315 1070	1 of 1	0	03 Oct 11	2 V 2-8 PzB 46 - 864 Ah
K11807-5	1 of 1	-	24 Aug 11	Zamasek 35 (Vent Plug 35)
gel_vent.10120.03	1 of 1	C	24 Aug 11	ZSB Ventil S35 (Assembly drawing valve 35)
PBTAMIDI_50***	1 of 1	-	24 Aug 11	ATI Cable connector
flex_st.10111.KD	1 of 1	A	24 Aug 11	Perfect connector

Issue 1

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
B 315 1046	1 of 1	1	22 Jan 12	Ex Label

The following drawings are removed:

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
B 315 1047	1 of 1	0	09 Sept 11	Ex Label, 2V EPzV
B 315 1048	1 of 1	0	09 Sept 11	Ex Label, 2V PzB
B 315 1049	1 of 1	0	09 Sept 11	Ex Label, 2V PzVB

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
B 315 1005	1 of 1	0	30 May 14	2 V 9-11 PzB 207 - 1188 Ah
B 315 1030	1 of 1	3	30 May 14	2 V 2-6 EPzV 110 - 720 Ah
B 315 1040	1 of 1	3	30 May 14	2 V 6-10 EPzS 300 - 1550 Ah
B 315 1060	1 of 1	2	30 May 14	2 V 6-10 EPzS 300 - 1860 Ah
B 315 1075	1 of 1	0	30 May 14	2 V 9-11 PzB 207 - 1188 Ah

Issue 3

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
B 315 1046	1 of 1	3	05 Oct 15	Ex-Label

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