

 <p><b>ISO 9001</b> OBAC/002/SZJ/23</p>	<p><b>P.H.P.U.</b></p> <p><b>IZOL PLAST</b> →</p> <p>Sp. z o.o. 44-362 Rogów ul. Raciborska 79 tel./fax 32-4512444, 32-4512010 <a href="http://www.izol-plast.rogow.pl">www.izol-plast.rogow.pl</a></p>	<p><b>INDEX CARD</b></p>
	<p><b>Explosion-proof rechargeable battery of reinforced type SBS-4W and SBS-4WŻ</b></p>	

## Explosion-proof accumulator battery of reinforced construction, type SBS-4W and SBS-4WŻ

Explosion-proof battery batteries of reinforced construction "e" type SBS-4W with classic cells or SBS-4WŻ with gel cells are used as a source of energy for battery locomotives type Lea BM-12 and ELA-44 / \*. During electric braking with a locomotive, an explosion-proof battery battery of reinforced construction "e" type SBS-4W or SBS-4WŻ acts as an electric energy receiver.

Explosion-proof battery battery type SBS-4W or SBS-4WŻ is made as a welded structure, ensuring ventilation of the interior. Ventilation (airing) of the box is carried out thanks to the ventilation openings made in the bottom of the battery chambers and the special construction of covers, additionally ventilation is facilitated by ventilation-distance spacers placed between the walls of the chambers and the cells.



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The electrical equipment of an explosion-proof battery includes the following components:

- terminal blocks dKAW-400A with the EU-type examination certificate  
o no .: **KDB 06ATEX317**,
- GM-1A monitoring socket with EU-type examination certificate  
o no .: **KDB 06ATEX318X**,
- **SBS-4W battery**: 8EPzS840L battery cells with a capacity of 840 Ah, EU-type examination certificate no .: SIRA 10ATEX3255U
- **SBS-4WŻ battery**: type 8 PzV 760 battery cells with a capacity of 760 Ah, having an EU-type examination certificate no .: SIRA 03ATEX3090U
- set of screws and fasteners.

Rated data:

- dimensions:	2920 x 1050 x 825mm
- weight (with cells loaded):	5500 kg
- ambient temperature:	0°C to +40°C
- battery rated voltage	144 V DC
- capacity:	(SBS-4W) - 840 Ah; (SBS-4WŻ) - 760 Ah
- working position:	horizontally
- anti-corrosion protection of the inside of the battery:	Borklej type insulating material
- long-term discharge current	150 A DC
- short-term discharge current (60s)	250 A DC

Rated data of SBS-4W cells:

Battery cell type	<b>2V 8 EPzS 840 Ah with tension 2V</b>
Manufacturer of battery cells	TAB Polska Sp. z o.o.
WE-type examination certificate for cells	SIRA 10ATEX3255U
The date of issue of the certificate	12.2014r.
Cell marking according to ATEX	I M2 Ex e I Mb
Battery capacity:	840Ah
Cell dimensions	198 x 156 x 545 mm
The mass of the cell with the electrolyte	47 kg
Cell handling	Periodic replenishment of the electrolyte

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Rated data of SBS-4WŻ cells:

Battery cell type	<b>8 PzV 760 with tension 2V</b>
Manufacturer of battery cells	EnerSys - Hawker.
WE-type examination certificate for cells	SIRA 03ATEX3090U
Cell marking according to ATEX	I M2 Ex e I
Battery capacity:	760Ah
Cell dimensions	198 x 155 x 541 mm
The mass of the cell with the electrolyte	51 kg
Cell handling	Completely maintenance-free

**Certificate:**

Battery boxes of the SBS-4W or SBS-4WŻ type have the WE type examination certificate: **KDB 06ATEX314X / 2 of 25.11.2015** as a supplement to the WE type examination certificate: **KDB 06ATEX314X of 28.12.2006**

The basic requirements of safety and health protection were implemented by meeting the requirements of the following standards:

- PN-EN 60079-0:2013; (EN 60079-0:2012),
- PN-EN 60079-7:2010; (EN 60079-7:2007).

SBS-4W or SBS-4WŻ type battery boxes are marked with:



**KDB 06ATEX314X**  
I M2 Ex e I Mb



**1461**