



## HGS 150RW 250 V / 500 V Breakdown Fuse

This breakdown fuse is designed to protect electrically conductive parts and structures of the overhead contact line against impermissible touch voltage in case of any fault whilst it serves as a galvanic separation unit isolating protected parts from the track return system. This breakdown fuse establishes a conductive connection of protected parts with the track return system when a voltage higher than the breakdown fuse igniting voltage appears. Parts being protected are electrically conductive parts and structures of an overhead contact line and other conductive parts in area of overhead contact line and current collector as stipulated in EN 50122-1 ed.2.

The breakdown fuse is based on a high-rupturing capacity (H.R.C.) surge voltage protector (SVP) with a compressed-gas

filling having a specified ignition voltage. This surge voltage protector (SVP) is non-exchangeable.

The breakdown fuse is fixed to the protected part by two bolts to improve the system reliability.

The voltage-current characteristic of this breakdown fuse is the same for positive as well as negative voltage polarity. The breakdown fuse is designed to be installed in outdoor environment having all and any climatic effects of the temperate zone (snow, rain, humidity, frost, solar radiation, active oxygen, dust) – AB8 according to HD 384.3 S1 (mod IEC 364-3).

Type of construction, main dimensions, connecting terminals for each mounting alternative, and other details are shown in the producer's specification TP-EŽ-02/2009.

### Technical Specifications

Type	HGS 150RW 250 V / 500 V
Manufactured in compliance with following standards	EN 61643-11 ed.2, EN 50122-1 ed.2
Ignition voltage	150 V ÷ 250 V, 300 V ÷ 500 V
Pulsed breakdown voltage at 5 kV/μs (wave 1,2/50 μs). For 99 % of measured values	<1200 V
Max. discharge current $I_{max}$ (8/20μs)	200 kA
Rated (nominal) discharge current $I_n$ (8/20μs)	100 kA
Impulse current $I_{imp}$ (10/350 μs) Charge Specific energy	150 kA 75 As 5500 kJ/Ω
Rated withstand current	8 kA/100 msec (AC-mode) 20 kA/30 msec (DC-mode)
Insulation resistance at 100V DC	>1 GΩ
Capacity at 1 MHz	<5 pF
Recommended conductor cross-section	ČSN 33 1500 ed.2
Protection provided by enclosure	IP 66
Operation and storage temperature	-50 ÷ +40 °C
Weight	ca. 900 g



**ELEKTRIZACE ŽELEZNIC PRAHA a. s.**

nám. Hrdinů 1693/4a,  
140 00 Praha 4 Czech Republic

Phone: +420 296 500 101 - Managing Director Secretariate  
+420 296 500 301 - Commercial Dpt.  
+420 296 500 311- Export Dpt.  
e-mail: info@elzel.cz

[www.elzel.cz](http://www.elzel.cz)