



## **FINAL REPORT**

### **31-10517/EZ**

**Product:** Storage type water heaters

**Type designation:** Z200 ESTD ErP

**Versions:** Z30 ESD, Z50 ESD, Z75 ESD, Z100 ESD,  
Z150 ESTD,

**Customer:** HAJDU HAJDÚSÁGI IPARI ZRt.  
Külterület hrsz. 135/9  
4243 Téglás  
HUNGARY

**Manufacturer:** HAJDU HAJDÚSÁGI IPARI ZRt.  
Külterület hrsz. 135/9  
4243 Téglás  
HUNGARY

**Report issue date:** 2020-09-21

**Distribution list:** 1 copy to the Engineering Test Institute  
1 copy to the Customer



Assessment of product conformity has been carried out pursuant to Act 90/2016 Coll., on conformity assessment of products when made available on the market, as amended, and pursuant to Government Regulation 118/2016 Coll., on conformity assessment of marketed electrical equipment designed for use within certain voltage limits (hereinafter referred to as GR 118/2016 Coll.).

Fulfilment of the requirements for assessment of conformity with the abovementioned GR 118/2016 Coll. establishes conformity with the requirements of Annex I, Directive 2014/35/EU of the European Parliament and of the Council.

Certification scheme applied: ČSN EN ISO/IEC 17067:2014, Scheme 1a.

## I. Product specification and its versions

Z30 ESD, Z50 ESD, Z75 ESD, Z100 ESD, Z150 ESD, and Z200 ESD ErP storage water heaters are intended for supplying of several water supply points with hot water for households and similar facilities. A temperature controller itself switches off the heating function when the water temperature reaches the set value.

A polyurethane heat insulation of the inner tank prevents water from cooling and there is hot water available in the tank for a long time. The tank is designed to discharge water without mixing. The inner tank protection against corrosion is ensured by a special enamel surface treatment and an active anode. The products are suitable for water supply network at a nominal pressure of 1.0 MPa.

### Basic technical data:

Type designation	Volume	Power input	Voltage	Frequency	Degree of protection provided by enclosure	Used thermostat
Z30 ESD	30l	1800W	230V	50Hz	IPX4	TSR00005
Z50 ESD	50l	1800W	230V			TUS00149
Z75 ESD	75l	1800W	230V			TSE20009
Z100 ESD	100l	1800W	230V			BTS50005
Z150 ESD	150l	1800W	230V/400V			
Z200 ESD ErP	200l	2400W	230V/400V			

Technical parameters, detailed description and electrical wiring diagram are included in the accompanying technical documentation.



## II. Assessment of technical file

- Pursuant to Annex 3 (2), GR 118/2016 Coll.

Tab. 1		
Required technical documentation:	Background materials, documents:	Evaluation:
The documentation shall make it possible to assess the electrical equipment's conformity to the relevant requirements, and shall include an adequate analysis and assessment of the risk(s). The technical documentation shall specify the applicable requirements and cover, as far as relevant for the assessment, the design, manufacture and operation of the electrical equipment		+
a)	General description of the electrical equipment;	+
b)	conceptual design, manufacturing drawings and diagrams of the components, sub-assemblies, circuits etc.;	+
c)	descriptions and explanations necessary for comprehensibility of the drawings and diagrams specified under Clause b) and the operation of the electrical equipment;	+
d)	a list of the harmonised standards applied in full or in part, the references of which have been published in the Official Journal of the European Union or international standards referred to in Section 10 (1) (b) or Czech technical standards referred to in Section 10 (1) (c) and description of the solutions adopted to meet the essential technical requirements of this Regulation, where the harmonised, international or national standards have not been applied, including a list of other relevant technical specifications applied. In the event of partly applied harmonised standards or international standards referred to in Section 10 (1) (b) or national standards referred to in Section 10 (1) (c), the technical documentation shall specify the parts which have been applied;	x
e)	results of design calculations made, examinations carried out or other results of calculations or checks;	x
f)	test reports.	x
*) Evaluation:		
+ Documentation is complete and adequate      - Documentation is incomplete or inadequate      x Documentation is not required for activities ordered      N Not applicable		

The technical documentation submitted has been found sufficient and adequate for assessment of conformity to essential requirements of GR 118/2016 Coll.

Detailed results are contained In Evaluation Report 31-10517/EH.





### III. Assessment of product conformity to essential requirements pursuant to Annex 1 of GR 118/2016 Coll.

Tab. 2

No.	Requirement	Standard, technical regulation applied	Source document	Evaluation *)
1.	General conditions			
1. a)	The essential characteristics, the recognition and observance of which will ensure that electrical equipment will be used safely and in applications for which it was made, shall be marked on the electrical equipment, or, if this is not possible, on an accompanying document,	ČSN EN 60335-1 ed.3:2012+A11:2014+ Z1:2014+Opr.1:2014+ Z2:2016+A13:2018+ Opr.2:2019 ČSN EN 60335-2-21 ed.2:2004+A1:2005+ A2:2009+Opr.1:2007+ Opr.2:2008+Opr.3:2011	Evaluation Report 31-10517/EH	+
1. b)	the electrical equipment, together with its component parts, shall be made in such a way as to ensure that it can be safely and properly assembled and connected,			+
1. c)	the electrical equipment shall be so designed and manufactured as to ensure that protection against the hazards set out in Clauses 2 and 3 is assured, providing that the equipment is used in applications for which it was made and that it is adequately maintained.			+
2.	Protection against hazards arising from the electrical equipment Measures of a technical nature shall be laid down in accordance with Clause 1, in order to ensure that			
2. a)	persons and domestic animals are adequately protected against the danger of physical injury or other harm which might be caused by direct or indirect contact;	ČSN EN 60335-1 ed.3:2012+A11:2014+ Z1:2014+Opr.1:2014+ Z2:2016+A13:2018+ Opr.2:2019 ČSN EN 60335-2-21 ed.2:2004+A1:2005+ A2:2009+Opr.1:2007+ Opr.2:2008+Opr.3:2011 ČSN EN 62233:2008	Evaluation Report 31-10517/EH	+
2. b)	temperatures, arcs or radiation which would cause a danger, are not produced;			+
2. c)	persons, domestic animals and property are adequately protected against non-electrical dangers caused by the electrical equipment which are revealed by experience, and			+
2. d)	the insulation is suitable for foreseeable conditions.			+
3.	Protection against hazards arising from the electrical equipment Measures of a technical nature shall be laid down in accordance with Clause 1, in order to ensure that			
3. a)	meets the expected mechanical requirements in such a way that persons, domestic animals and property are not endangered;	ČSN EN 60335-1 ed.3:2012+A11:2014+ Z1:2014+Opr.1:2014+ Z2:2016+A13:2018+ Opr.2:2019 ČSN EN 60335-2-21 ed.2:2004+A1:2005+ A2:2009+Opr.1:2007+ Opr.2:2008+Opr.3:2011	Evaluation Report 31-10517/EH	+
3. b)	is resistant to non-mechanical influences in expected environmental conditions, in such a way that persons, domestic animals and property are not endangered, and			+
3. c)	in foreseeable conditions of overload it does not endanger persons, domestic animals and property.			+
*) Evaluation:				
+ Requirement fulfilled      - Requirement not fulfilled      0 Not evaluated      N Not applicable				



Essential requirements for the electrical equipment referred to in Annex 1 to GR 118/2016 Coll. have been met.

Fulfilment of the requirements for assessment of conformity with the abovementioned GR establishes conformity with the requirements of Annex I to Directive 2014/35/EU of the European Parliament and of the Council.

The ČSN EN standards applied are identical to the following normative EU documents:

EN 60335-1:2012 + EN 60335-1:2012/A11:2014 + EN 60335-1:2012/A13:2017 + EN 60335-1:2012/AC:2014-01

EN 60335-2-21:2003 + EN 60335-2-21:2003/A1:2005 + EN 60335-2-21:2003/A2:2008

+ IEC 60335-2-21:2002/Cor.1:2007-03 + EN 60335-2-21:2003/Cor.:2007-10 + EN 60335-2-21:2003/Cor.:2010-10

EN 62233:2008

The results contained in Evaluation Report 31-10517/EH of 2020-09-18, issued by and archived at SZU in Brno, have been made use of to evaluate essential requirements.

#### **IV. Conclusion**

It ensues from the assessment of the technical documentation submitted and from the verifications and tests performed that the products:

**Storage type water heaters Z30 ESD, Z50 ESD, Z75 ESD, Z100 ESD, Z150 ESTD, Z200 ESTD ErP  
(see Chapter I for specification)**

has been designed and manufactured in compliance with essential requirements of GR 118/2016 Coll.

#### **V. A list of referenced background materials**

- Order of 2020-07-21 (Order reg. no. B-70500, received on 2020-07-22)
- Contract B-70500/31
- Amendments to Contract and Changes of Implementation Date
  - B-70500.Z1 ze dne 2020-08-28
- Act 90/2016 Coll. on conformity assessment of products when made available on the market
- DIRECTIVE 2014/35/EU on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits
- ČSN EN 60335-1 ed.3:2012+A11:2014+Z1:2014 + Opr.1:2014+Z2:2016+A13:2018 + Opr.2:2019 (idt. EN 60335-1:2012 + EN 60335-1:2012/A11:2014 + EN 60335-1:2012/A13:2017 + EN 60335-1:2012/AC:2014-01) - Household and similar electrical appliances - Safety - Part 1: General requirements
- ČSN EN 60335-2-21 ed.2:2004+A1:2005+A2:2009+Opr.1:2007+Opr.2:2008+Opr.3:2011 (idt. EN 60335-2-21:2003/A1:2005//A2:2008 + IEC 60335-2-21:2002/Cor.1:2007-03 + EN 60335-2-21:2003/Cor.:2007-10 + EN 60335-2-21:2003/Cor.:2010-10) - Household and similar electrical appliances - Safety - Part 2-21: Particular requirements for storage water heaters
- ČSN EN 62233:2008 (idt. EN 62233:2008) - Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure
- Evaluation Report 31-10517/EH of 2020-09-18



- A list of technical documentation:
  - Installation and utilisation directions HOT WATER STORAGE TANK Z30 ESD, Z50 ESD, Z75 ESD, Z100 ESD, Z150 ESTD, Z200 ESTD ErP, Z200 ESD-H, Z150 ESD-H (1221112905/01)
  - FMEA EXAMINATION TEMPLATE of 2020-07-31
  - Electrical parts Z...ESD(T) submitted on 2020-08-18

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