	<b>ARCHIMEDE ENERGIA</b>	Document N.	22-9821- 3
	<b>APPROVAL OF LITIUM BATTERIES FAMILY PJI-17X-1Y0-TDR</b>	Revision	0
	<i>ESSENTIAL CHARACTERISTICS OF REESS</i>	Revision date	09.11.2022

## 5. Essential characteristic of REESS

The technical specification follow shall be used to fulfill the UNECE R100 rev. 3 Annex 1 Part 2.

1 REESS

**1.1 Trade name and mark of the REESS:**

*Trade Name*

ARCHIMEDE ENERGIA Srl

*Trade Mark*



*Annotation*

The trade name and the trade mark shall be used in conjunction. The tradename is the minimum information to be indicate in the identification label in conjunction with the address of manufacturer.

**1.1.1 Type of REESS**

*Type of RESS*

PJI-17X-1Y0-TDR

*Manufacturer codification of batteries family*

Where

X = 0 or 8

Y = 0 or 5

**1.2 Indication of all types of cells:**

*Manufacturer*

JEVE

*Model/Type*

IXP74/229/269PA 53.5Ah

*Alternative*

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1.2.1 The cell chemistry:

LiNMC - Lithium-ion Nickel Manganese Cobalt


1.2.2 Physical dimensions:

Thickness :7.4mm Width :229mm Length :269mm

1.2.3 Capacity of the cell (Ah):

53 Ah

**1.3 Description or drawing(s) or picture(s) of the REESS explaining:**

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1.3.1 Structure: Single unit with embedded Battery Management System (BMS); metallic case;

1.3.2 Configuration (number of cells, mode of connection, etc.): N. of cells: S x P x M

	Nr. Modules M	Configuration <i>Series // Parallels</i>
PJI-170-100-TDR	7	6S2P
	1	4S2P
PJI-170-150-TDR	7	6S3P
	1	4S3P
PJI-178-100-TDR	8	6S2P
PJI-178-150-TDR	8	6S3P

1.3.3 Dimensions: 950 x 550 x 350 mm

1.3.4 Casing (construction, materials and physical dimensions):  
 Metallic case in stainless steel AISI 304  
 External dimensions 950 x 550 x 350 mm  
 Thickness min. 1,5 mm  
 Cover with screws  
 All electrical connection placed in the same side

1.4 **Electrical specification:**

1.4.1 Nominal voltage (V): PJI-170-1Y0-TDR 170 V

PJI-178-1Y0-TDR 178 V

1.4.2 Working voltage (V): PJI-170-1Y0-TDR from 133,4 V to 197,8 V

PJI-178-1Y0-TDR from 139,2 V to V 206,4 V


1.4.3 Capacity (Ah): @25 ± 3°C 65±20%RH, 86kPa~106kPa

PJI-17X-100-TDR 100 Ah

PJI-17X-150-TDR 150 Ah

1.4.4 Maximum current (A):  
 Peak Discharge 1,33C for 30s;  
 Max Charge/discharge 1 C;  
 Standard charge/discharge 0,5 C;

C values:

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PJI-17X-100-TDR = 100 A

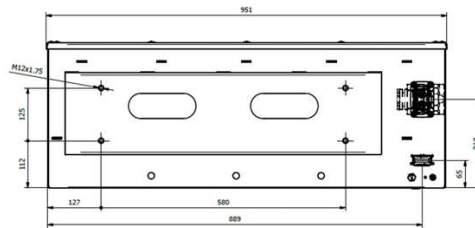
PJI-17X-150-TDR = 150 A

1.5 **Gas combination rate (in per cent):** --

1.6 **Description or drawing(s) or picture(s) of the installation of the REESS in the vehicle:**

1.6.1 Physical support:

2 sides of the REESS are provided with means for connection to a metallic frame prepared by the Vehicle Manufacturer.



Other than top and bottom, all sides of the REESS shall be considered as “direction of travel”.

Batteries shall be installed in stack where vehicle manufacturer provides a specific frame.

See Manufacturer Instruction sheet

1.7 **Type of thermal management**

Continuous monitoring of REESS internal temperature are performed by the embedded Battery Management System (BMS). Upper and Lower temperature limits are factory defined. Positive and negative poles are automatically cutted-off if the cells temperatures is greater than upper limit or less than lower limit.

CAN Bus provide information about the REESS internal temperature. Warning as per clause 5.2.3 of UNECE R100 R3 not performed by REESS.

1.8 **Electronic control:**

BMS model SCD-AEx-SPI-yyy

Where:

x is the hardware platform code


y is the mounting version and the revision number

1.9 **Category of vehicles on which the REESS can be installed:**

M and N

Restriction in use

As per 6.4.2.2 of Regulation; Min. working temperature -20°C

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## 6. Attachments

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1. Datasheet of cells
2. Preliminary datasheet of REESS
3. Manufacturer Instruction Sheet

END OF DOCUMENT

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