Test report

# Drop test
# with Sealed Air packing
# LV 100-Tension
# LV 100-Current
# CV3
# LT 200
# LT 300

Confidential





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| Index | Date | Name | Modifications |
|---|---|---|---|
| 0 | 06/03/2015 | F. Roy | Creation |
| | | | |

## Contents

# 1 Subject

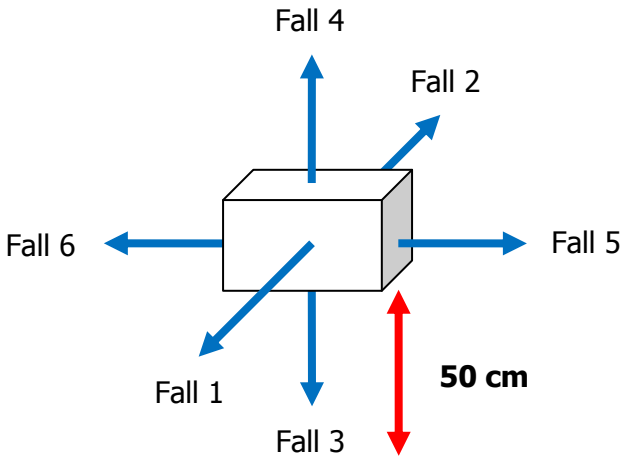
Modification of the packing for listed items.
Currently these items are unit or couple packed into a polystyrene (Sagex) box.
The modifications affect:
The material : Polystyrene material is replaced by polyurethane into an ESD plastic bag.
The quantity per box : Function of model, a carton will contains one or two layer of four or five items (previously one or two per box).
Packing process : packing forms are realized as needed using a moulding machine Instapack iMold® and a dedicated mould.

# 2 Packing materials

| | |
|---|---|
| Carton: | Standard carton |
| Expansible foam: | Polyurethane Instapack® Moulding Foam (10kg/m$^3$) |
| Plastic bag: | XXX pink, ESD |

# 3 Drop test

A drop test is realized according the procedure CO.60.14.007.0
Items are packed into a carton box following standard method.
The box is then dropped on the floor consecutively on their 6 faces. The drop height is 50 cm.




The drop test is validated by a visual control – no mark on the item – as well a functional test (serial final test).

# 4 ESD test

Drop tests are realized with plastic bag not ESD. It is why the pictures in this report show grey bag.

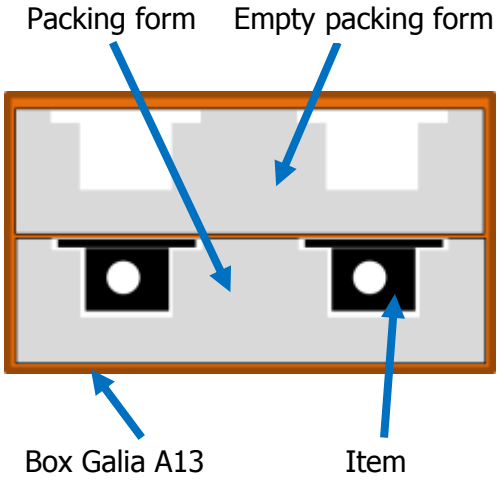
However, the bags that will be used in the final parts are made of the same material as that already used for parts using the Speedy Packer system. So ESD tests were performed on it.

Results of ESD test are conform to the procedure 98.60.04.069.0.

# 5 LT 200 LT 300

Configuration 1 (4 per carton box)

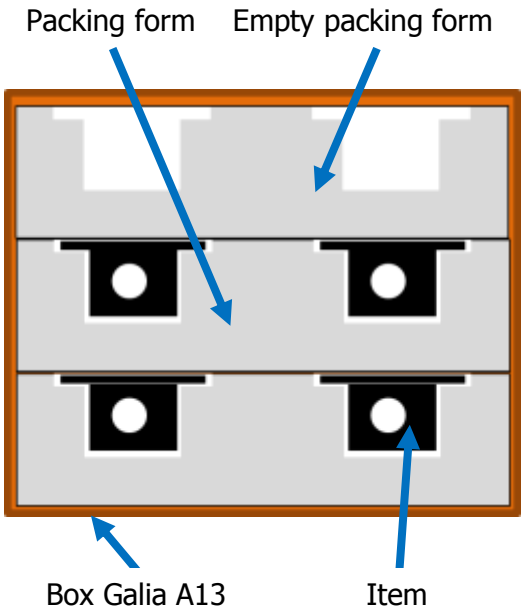
Total packaging weight: 2.7 kg




Control after drop test:
Visual control : PASS
Functional control : PASS

Configuration 2 (8 per carton box)

Total packaging weight: 4.7 kg



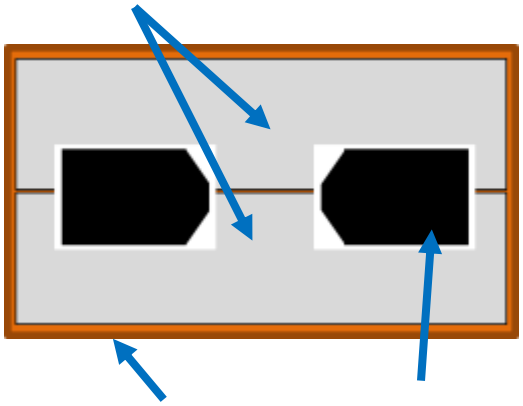

Control after drop test:
Visual control : PASS
Functional control : PASS

# 6 CV 3

Configuration 1 (5 per carton box)

Total packaging weight: 3.4 kg

Symetrical packing form



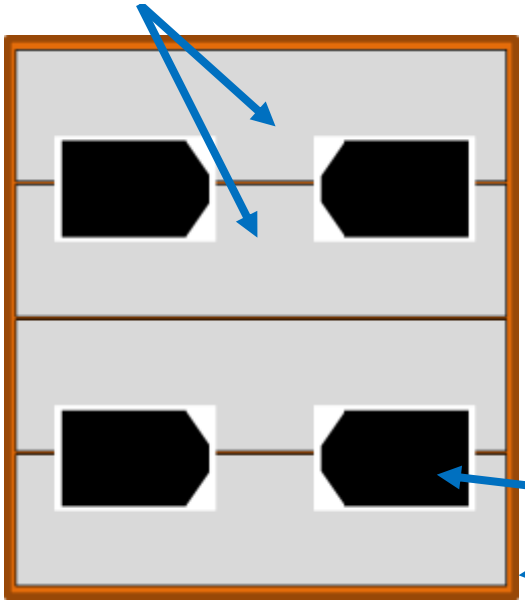
Box Galia A13 Item

Control after drop test:
Visual control : PASS
Functional control : PASS

Configuration 2 (10 per carton box)

Total packaging weight: 6.5 kg

Symmetrical packing form



Item

Box 330x300x400

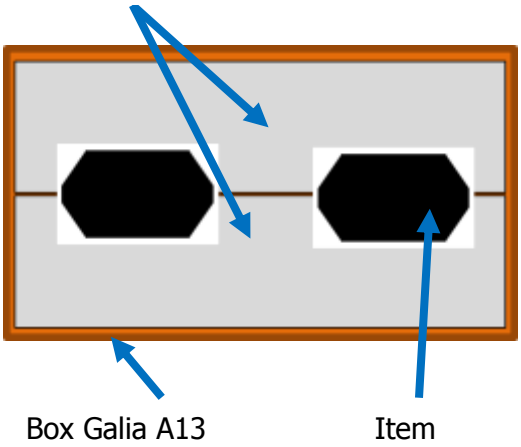
Control after drop test:
Visual control : PASS
Functional control : PASS

# 7 LV 100 courant

Configuration 1 (5 per carton box)

Total packaging weight: 3.0 kg

Symmetrical packing form

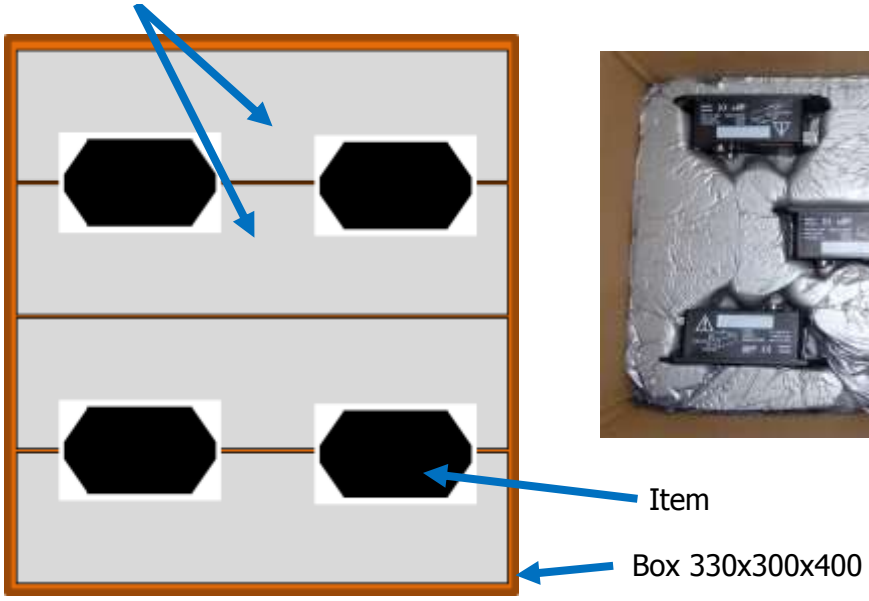



Control after drop test:
Visual control : PASS
Functional control : PASS

Configuration 2 (10 per carton box)

Total packaging weight: 5.7 kg

Symmetrical packing form

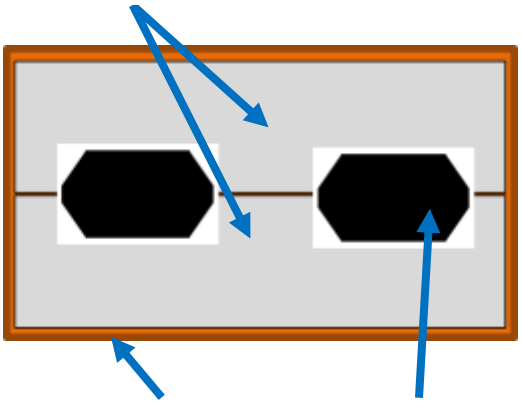



Control after drop test:
Visual control : PASS
Functional control : PASS

# 8 LV 100 tension

Configuration (4 per carton box)
Total packaging weight: 3.7 kg

Symmetrical packing form




Control after drop test:
Visual control : PASS
Functional control : PASS

Note: drop test were performed with LV 100 with T1 heat sink (big) as well T2 (small)

# 9 Conclusion

All items fulfil acceptability criterion after drop test.
Thus, moulds used to realise packing forms are validated with reserve of remark in §9.

# 10 Exception

As packing forms used has not been performed with the final mould and process (processing time), small defects has been observed and are described below. It is expected that they will be corrected on the final parts.

- Form filling not always completes.
- Position on form not uniform (some items are horizontal, someone are not).