

TECHNICAL

WE FIT YOUR ENERGY MODULAR PRODUCT FOR ALL TYPES OF BATTERIES AND ELECTRONICS

MODULAR E-CASE, A DISRUPTIVE BRAND

One of the great challenges of the industry is the design of the batteries and their homologation. We have developed a modular system that allows a wide configuration of battery boxes, by combining high-performance aluminum profiles.



Modular e-Case was born from the need to design a **system to store energy**. We develop and patent our profiling system to help the industry.



We avoid the creation of expensive molds, which **reduces the final cost** of the product and **reduces the delivery time**.



Our team of engineers has more than **25 years of experience** in the industry.

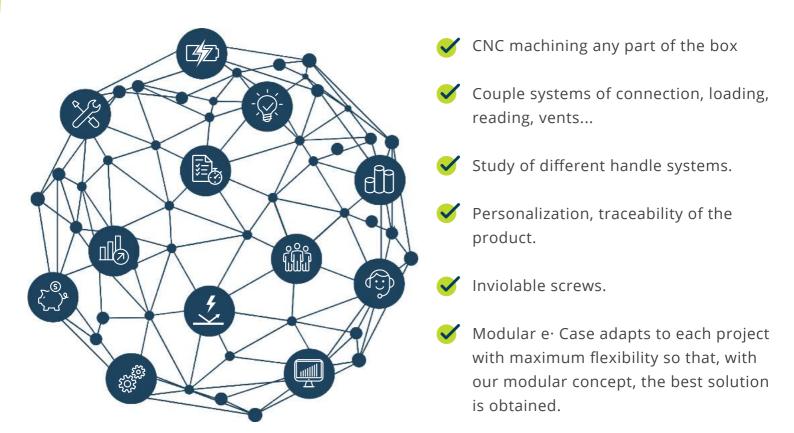


In e \cdot Case strives to be a **reliable partner** and develop the best solution.

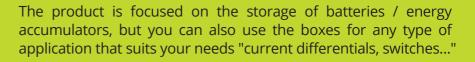


Our product Made in Spain, guarantees **speed**, **agility and quality**.

WE COVER NEEDS



Our system lowers costs and manufacturing time for small/medium-scale projects



Combining the collection of existing profiles, you can get infinite options, generate different shapes and sizes. You can also define the depth of the box at which you want.

We have meticulously elaborated a high quality product, with a very attractive design and obtaining a smooth finish, with an unbeatable functionality, following strict environmental criteria at all times.

CHARACTERISTICS



Easy, simple, fast, safe and economical.



Availability of infinite configurations.



Rigorous security features.



Cost reduction.



Our products are reusable.



Aluminium is a 100% recyclable product.



T6 6082 certified aluminum extruded and anodized.



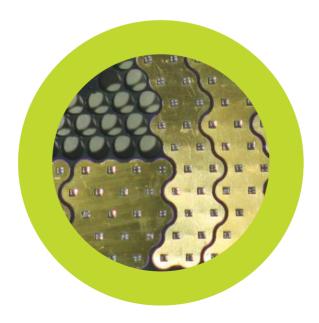
Immediate availability.



Modular E-Case complies with European approval requirements.



Other applications such as watertight junction boxes, controllers, etc.

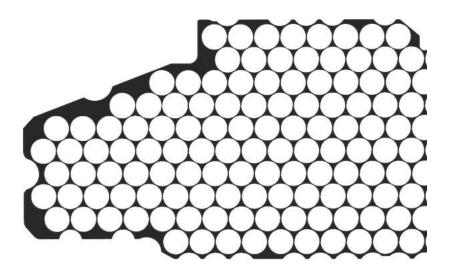


e-CASE MODULAR SYSTEM

The combination of our profiles allows multiple formats and measurements



Standard profile



Indoor religa for any lithium cell

Box Profiles

Combining these profiles you can create infinite box models.

REFERENCE	IMAGE
ZP01-02-01 BATTERY BOX FR	
ZP01-02-02 BATTERY BOX CE	
ZP01-02-05 BATTERY BOX RR	
ZP01-02-06 BATTERY BOX CORNER	
ZP01-02-07 BATTERY BOX CE - SMALL	
ZP01-02-08 BATTERY BOX CE - FOLDED	



Main box combinations

Those are the pre set combinations already defined by our team.

Two versions for each combination of the MODULAR e CASE.

- *STANDARD:* The lids are made of white opal polycarbonats.
- *PREMIUM:* The lids are made of high quality 6063 T6 aluminum, with a Matte Silver Anodized surface finish. They have the same material and surface finish as the structural pieces that make up the boxes, thus achieving total uniformity and obtaining a single box.

In "COMBINATION 18" we define the personalized option, where the customer can make the combination he wants according to their needs.

PROPERTIES	COMBINATION 1 (Page 9)	COMBINATION 2 (Page 10)	COMBINATION 3 (Page 11)	COMBINATION 4 (Page 12)	COMBINATION 5 (Page 13)
IMAGE					
REFERENCE	ZP01-01-01 COMBINATION 1	ZP01-01-02 COMBINATION 2	ZP01-01-03 COMBINATION 3	ZP01-01-04 COMBINATION 4	ZP01-01-05 COMBINATION 5
DIMENSIONS Thickness must be determined by the customer	69 x 69 mm	69 x 195 mm	69 x 322 mm	195 x 195 mm	322 x 195 mm
STANDARD LID	•				
PREMIUM LID					



PROPERTIES	COMBINATION 6 (Page 14)	COMBINATION 7 (Page 15)	COMBINATION 8 (Page 16)	COMBINATION 8S (página 17)	COMBINATION 9 (Page 18)
IMAGE					
REFERENCE	ZP01-01-06 COMBINATION 6	ZP01-01-07 COMBINATION 7	ZP01-01-08 COMBINATION 8	ZP01-01-08-S COMBINATION 8S	ZP01-01-09 COMBINATION 9
DIMENSIONS Thickness must be determined by the customer	322 x 322 mm	307 x 195 mm	346 x 195 mm	219 x 195 mm	473 x 195 mm
STANDARD LID					
PREMIUM LID					

PROPERTIES	COMBINATION 10 (Page 19)	COMBINATION 11 (Page 20)	COMBINATION 12 (Page 21)	COMBINATION 13 (Page 22)	COMBINATION 14 (Page 23)
IMAGE				ALL .	
REFERENCE	ZP01-01-10 COMBINATION 10	ZP01-01-11 COMBINATION 11	ZP01-01-12 COMBINATION 12	ZP01-01-13 COMBINATION 13	ZP01-01-14 COMBINATION 14
DIMENSIONS Thickness must be determined by the customer	(180 x 165) / 2 mm	(307 x 275) / 2 mm	331 x 195 mm	458 x 195 mm	370 x 195 mm
STANDARD LID	\bigcirc				8
PREMIUM LID					



PROPERTIES	COMBINATION 15 (Page 24)	COMBINATION 16 (Page 25)	COMBINATION 17 (Page 26)	COMBINATION 18 (Page 27)
IMAGE	a man			5:13
REFERENCE	ZP01-01-15 COMBINATION 15	ZP01-01-16 COMBINATION 16	ZP01-01-17 COMBINATION 17	-
DIMENSIONS Thickness must be determined by the customer	497 x 195 mm	292 x 195 mm	419 x 195 mm	Personalised
STANDARD LID				Personalised
PREMIUM LID				Personalised

Note 1: *All structural parts (page 3) and the PREMIUM covers of the MODULAR and CASE are composed of high quality 6063 T6 aluminum, with a Matte Silver Anodized surface finish.*

Note 2: *If the box is intended to build a battery, remember that it is recommended to put dielectric material on all of the two surfaces of the cells, to obtain proper electrical insulation.*

Note 3: To obtain a correct tightness, you must assemble the box following the instructions and you must also add silicone, as specified in the "MAKE YOUR MODULAR and CASE" manual.

Note 4: The width of the box must always be designated by the customer according to their needs. *(X)* See plan. Minimum width: 22 mm.

Note 5: The measurements reflected in all drawings are approximate.

Note 6: Minimum tolerance between cells 1 mm.

Note 7: The diffusion of this technical information is prohibited, for internal use only.



Properties and dimensions of the boxes and their modules

COMBINATION 1 ZP01-01-01

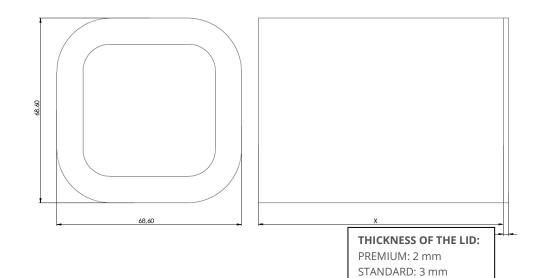


Composition

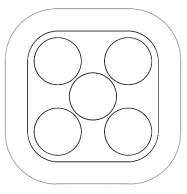
REFERENCE PIECE	QUANTITY
ZP01-02-06 BATTERY BOX CORNER	4
ZP01-04-01 BOLT TORX (3.5 x 10)	8
ZP01-07-01 NYLON WASHER	8

REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-01 COVER 1 AL	2
STANDARD ZP01-08-01 COVER 1 PC		2
* You must shoose one of the 2 entions		

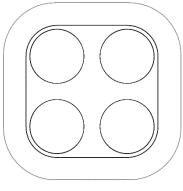
* You must choose one of the 2 options.



Box capacity:



18650 batteries 5 cells



21700 batteries 4 cells



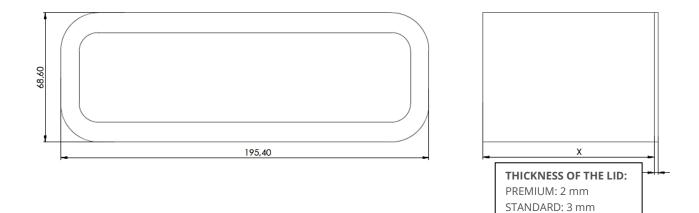
COMBINATION 2 ZP01-01-02



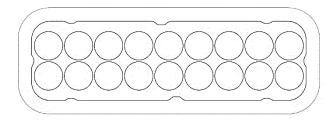
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	2
ZP01-02-06 BATTERY BOX CORNER	4
ZP01-04-01 BOLT TORX (3.5 x 10)	16
ZP01-07-01 NYLON WASHER	16

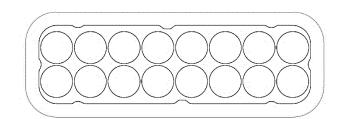
REF	REFERENCE LID	
PREMIUM	ZP01-03-02 COVER 2 AL	Э
STANDARD	ZP01-08-02 COVER 2 PC	2
* You must choose one of the 2 options.		



Box capacity:



18650 batteries 18 cells



21700 batteries 16 cells



COMBINATION 3 ZP01-01-03

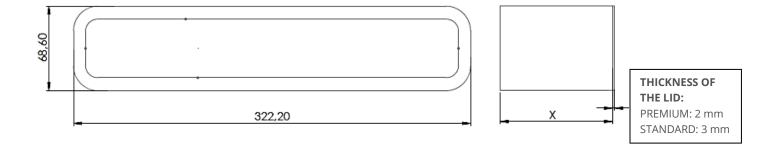


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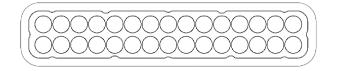
REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	4
ZP01-02-06 BATTERY BOX CORNER	4
ZP01-04-01 BOLT TORX (3.5 x 10)	24
ZP01-07-01 NYLON WASHER	24

REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-03 COVER 3 AL	2
STANDARD	ZP01-08-03 COVER 3 PC	2
* You must choose one of the 2 options.		

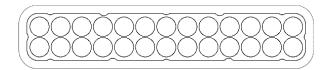
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Box capacity:



18650 batteries 30 cells



21700 batteries 26 cells



COMBINATION 4 ZP01-01-04

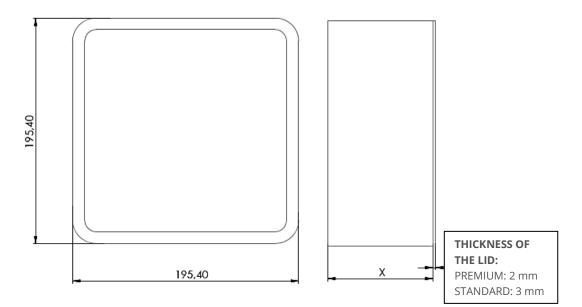


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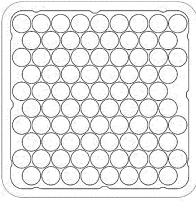
REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	4
ZP01-02-06 BATTERY BOX CORNER	4
ZP01-04-01 BOLT TORX (3.5 x 10)	24
ZP01-07-01 NYLON WASHER	24

REF	ERENCE LID	QUANTITY
PREMIUM	ZP01-03-04 COVER 4 AL	2
STANDARD	ZP01-08-04 COVER 4 PC	2
* You must choose one of the 2 ontions		

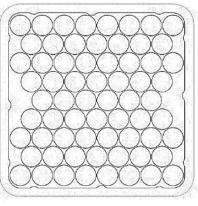
u must choose one of the 2 options.



Box capacity:



18650 batteries 84 cells



21700 batteries 66 cells



COMBINATION 5 ZP01-01-05



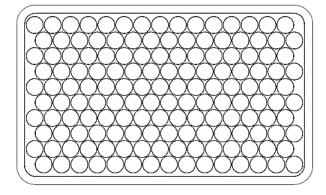
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	6
ZP01-02-06 BATTERY BOX CORNER	4
ZP01-04-01 BOLT TORX (3.5 x 10)	32
ZP01-07-01 NYLON WASHER	32

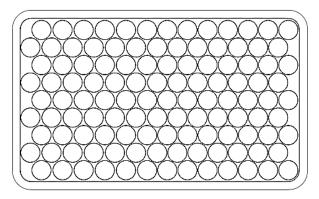
REF	ERENCE LID	QUANTITY
PREMIUM	ZP01-03-05 COVER 5 AL	2
STANDARD	ZP01-08-05 COVER 5 PC	Z
* You must choose	one of the 2 options.	

THICKNESS OF THE LID: PREMIUM: 2 mm STANDARD: 3 mm

Box capacity:



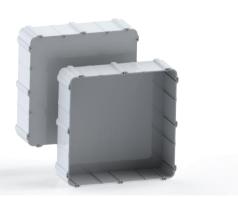
18650 batteries 150 cells



21700 batteries 117 cells



COMBINATION 6 ZP01-01-06

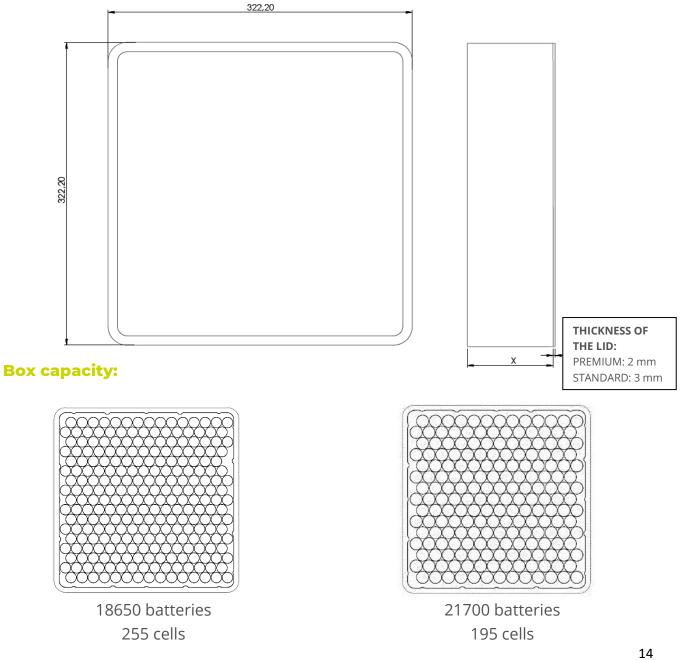


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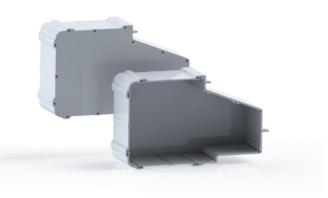
REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	8
ZP01-02-06 BATTERY BOX CORNER	4
ZP01-04-01 BOLT TORX (3.5 x 10)	40
ZP01-07-01 NYLON WASHER	40

REF	ERENCE LID	QUANTITY
PREMIUM	ZP01-03-06 COVER 6 AL	2
STANDARD	ZP01-08-06 COVER 6 PC	2
* You must choose one of the 2 options.		

ou must choose one of the 2 options.



COMBINATION 7 ZP01-01-07

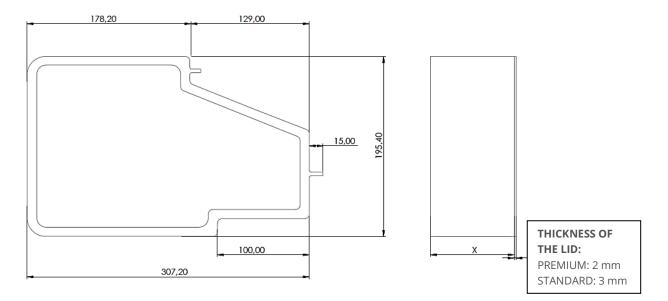


Composition

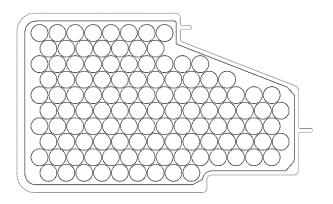
REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	3
ZP01-02-06 BATTERY BOX CORNER	2
ZP01-02-05 BATTERY BOX RR	1
ZP01-04-01 BOLT TORX (3.5 x 10)	28
ZP01-07-01 NYLON WASHER	28

REF	ERENCE LID	QUANTITY
PREMIUM	ZP01-03-07 COVER 7 AL	C
STANDARD	ZP01-08-07 COVER 7 PC	2
* Vou must shoose	and of the 2 options	

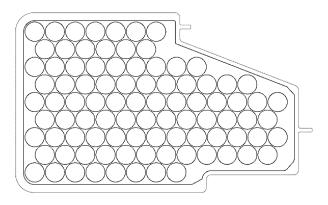
* You must choose one of the 2 options.



Box capacity:



18650 batteries 117 cells



21700 batteries 91 cells



COMBINATION 8 ZP01-01-08

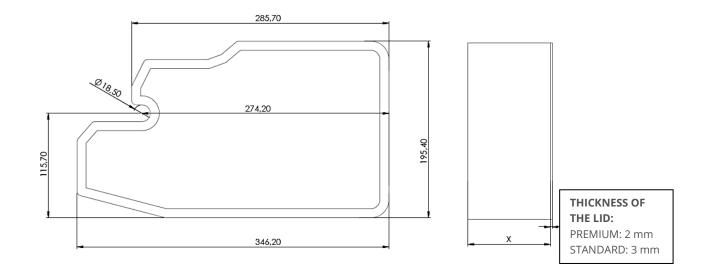


Composition

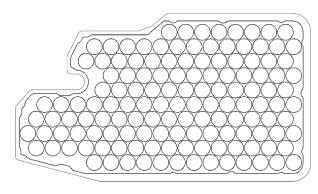
REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	1
ZP01-02-02 BATTERY BOX CE	3
ZP01-02-06 BATTERY BOX CORNER	2
ZP01-04-01 BOLT TORX (3.5 x 10)	34
ZP01-07-01 NYLON WASHER	34

REF	ERENCE LID	QUANTITY
PREMIUM	ZP01-03-08 COVER 8 AL	2
STANDARD	ZP01-08-08 COVER 8 PC	2
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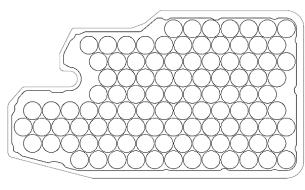
* You must choose one of the 2 options.



Box capacity:



18650 batteries 137 cells



21700 batteries 104 cells



COMBINATION 8S ZP01-01-08-S

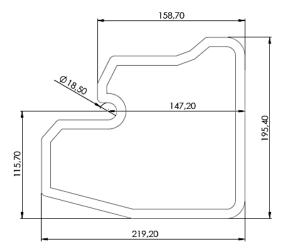


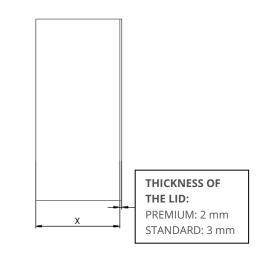
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	1
ZP01-02-02 BATTERY BOX CE	1
ZP01-02-06 BATTERY BOX CORNER	2
ZP01-04-01 BOLT TORX (3.5 x 10)	26
ZP01-07-01 NYLON WASHER	26

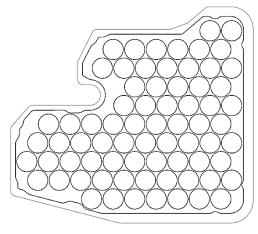
REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-08-S COVER 8S AL	2
STANDARD	ZP01-08-08-S COVER 8S PC	2
*Doho coloccionar una do las dos oncionos		

*Debe seleccionar una de las dos opciones.

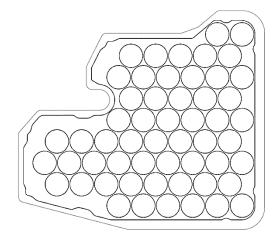




Box capacity:



18650 batteries 72 cells



21700 batteries 55 cells



COMBINATION 9 ZP01-01-09

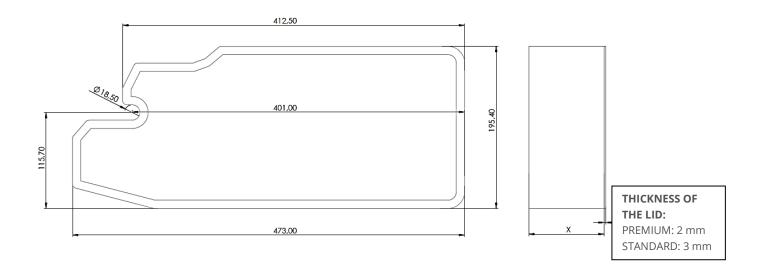


Composition

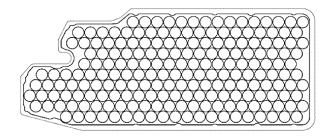
REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	1
ZP01-02-02 BATTERY BOX CE	5
ZP01-02-06 BATTERY BOX CORNER	2
ZP01-04-01 BOLT TORX (3.5 x 10)	42
ZP01-07-01 NYLON WASHER	42

REF	ERENCE LID	QUANTITY
PREMIUM	ZP01-03-09 COVER 9 AL	2
STANDARD	ZP01-08-09 COVER 9 PC	2
* //	and of the 2 options	

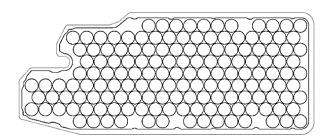
* You must choose one of the 2 options.



Box capacity:



18650 batteries 199 cells



21700 batteries 156 cells



COMBINATION 10 ZP01-01-10

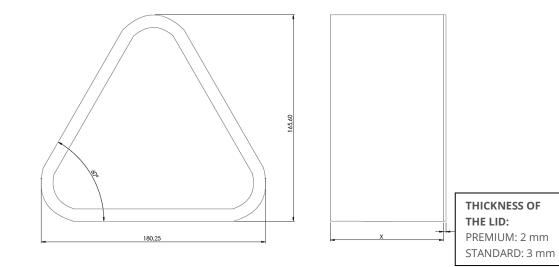


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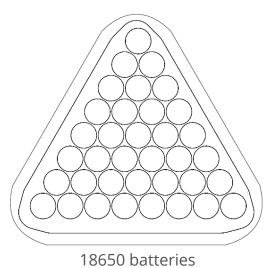
REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	3
ZP01-02-06 BATTERY BOX CORNER	3
ZP01-04-01 BOLT TORX (3.5 x 10)	18
ZP01-07-01 NYLON WASHER	18

REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-10 COVER 10 AL	2
STANDARD	ZP01-08-10 COVER 10 PC	2
* You must choose one of the 2 ontions		

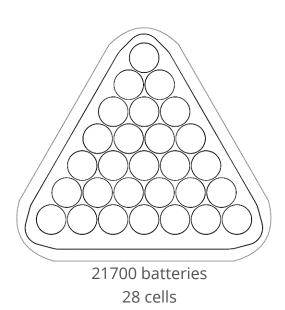
You must choose one of the 2 options.



Box capacity:



36 cells





COMBINATION 11 ZP01-01-11



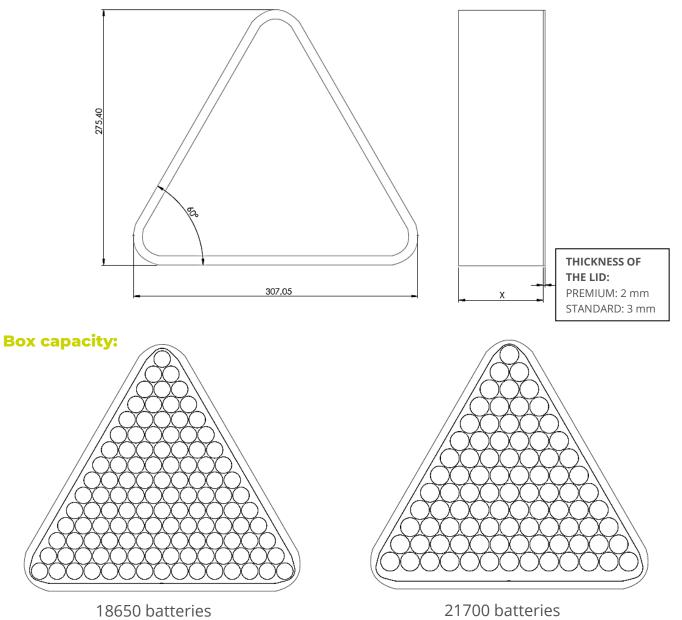
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	6
ZP01-02-06 BATTERY BOX CORNER	3
ZP01-04-01 BOLT TORX (3.5 x 10)	30
ZP01-07-01 NYLON WASHER	30

REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-11 COVER 11 AL	2
STANDARD	ZP01-08-11 COVER 11 PC	2
* You must choose one of the 2 ontions		

91 cells

* You must choose one of the 2 options.



120 cells

COMBINATION 12 ZP01-01-12

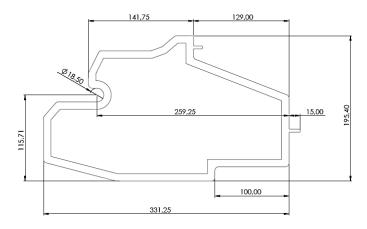


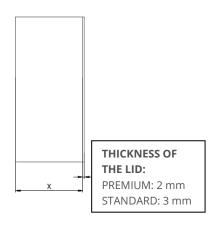
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	1
ZP01-02-05 BATTERY BOX RR	1
ZP01-04-01 BOLT TORX (3.5 x 10)	30
ZP01-07-01 NYLON WASHER	30

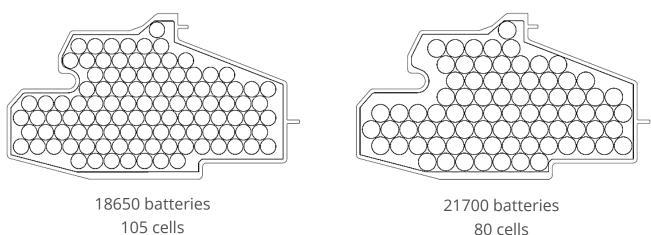
REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-12 COVER 12 AL	2
STANDARD	ZP01-08-12 COVER 12 PC	2
* You must choo	se one of the 2 ontions	

choose one of the 2 options.





Box capacity:



80 cells



COMBINATION 13 ZP01-01-13

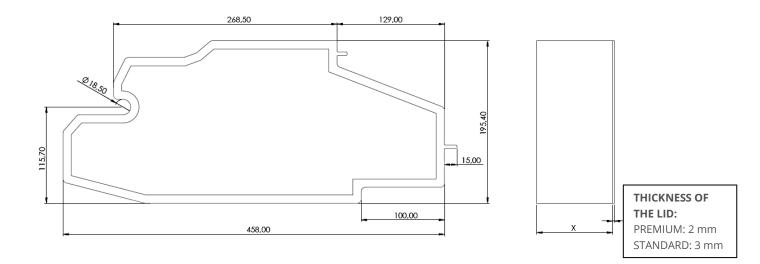


Composition

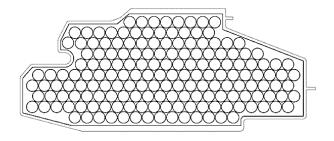
REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	1
ZP01-02-02 BATTERY BOX CE	2
ZP01-02-05 BATTERY BOX RR	1
ZP01-04-01 BOLT TORX (3.5 x 10)	38
ZP01-07-01 NYLON WASHER	38

R	EFERENCE LID	QUANTITY
PREMIUM	ZP01-03-13 COVER 13 AL	2
STANDARD	ZP01-08-13 COVER 13 PC	2
* Vou must cho	se one of the 2 options	

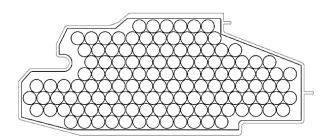
 $\ensuremath{^{\ast}}$ You must choose one of the 2 options.



Box capacity:



18650 batteries 170 cells



21700 batteries 129 cells



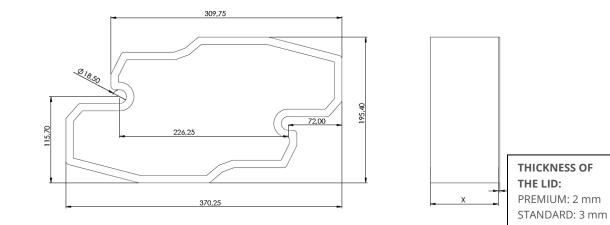
COMBINATION 14 ZP01-01-14



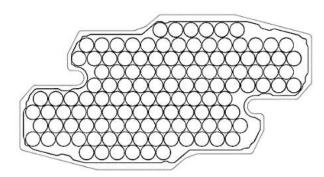
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	2
ZP01-04-01 BOLT TORX (3.5 x 10)	36
ZP01-07-01 NYLON WASHER	36

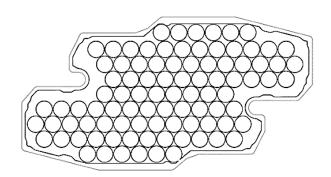
REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-14 COVER 14 AL	Э
STANDARD	ZP01-08-14 COVER 14 PC	2
* You must choose one of the 2 options.		



Box capacity:



18650 batteries 123 cells



21700 batteries 92 cells



COMBINATION 15 ZP01-01-15

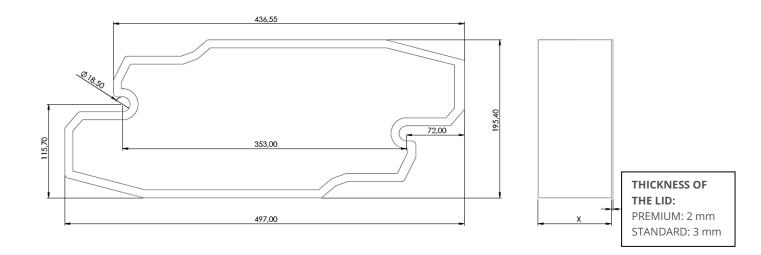


Composition

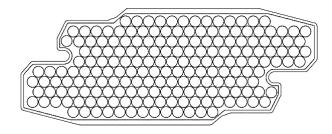
REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	2
ZP01-02-02 BATTERY BOX CE	2
ZP01-04-01 BOLT TORX (3.5 x 10)	44
ZP01-07-01 NYLON WASHER	44

RI	EFERENCE LID	QUANTITY
PREMIUM	ZP01-03-15 COVER 15 AL	2
STANDARD	ZP01-08-15 COVER 15 PC	2
* You must choo	se one of the 2 ontions	

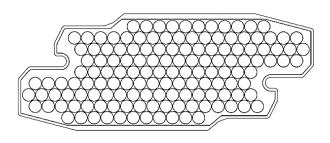
must choose one of the 2 options.



Box capacity:



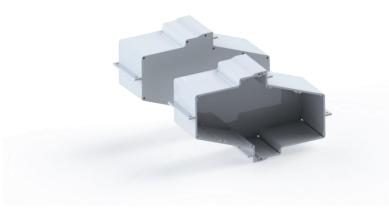
18650 batteries 186 cells



21700 batteries 142 cells



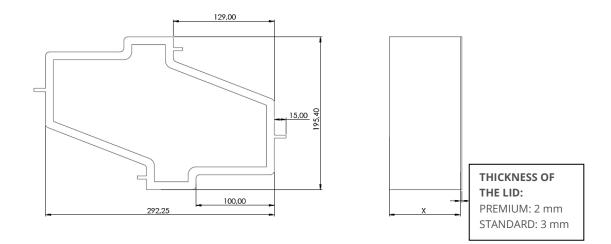
COMBINATION 16 ZP01-01-16



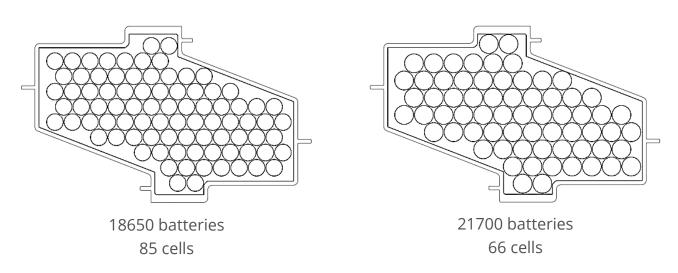
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-05 BATTERY BOX RR	2
ZP01-04-01 BOLT TORX (3.5 x 10)	24
ZP01-07-01 NYLON WASHER	24

RI	EFERENCE LID	QUANTITY
PREMIUM	ZP01-03-16 COVER 16 AL	Э
STANDARD	ZP01-08-16 COVER 16 PC	2
* You must choose one of the 2 options.		

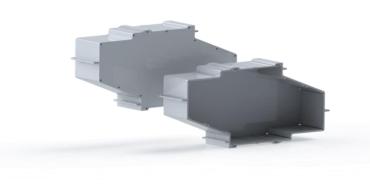


Box capacity:





COMBINATION 17 ZP01-01-17



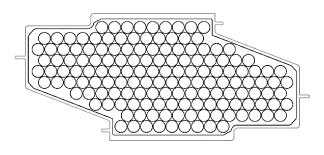
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	2
ZP01-02-05 BATTERY BOX RR	2
ZP01-04-01 BOLT TORX (3.5 x 10)	32
ZP01-07-01 NYLON WASHER	32

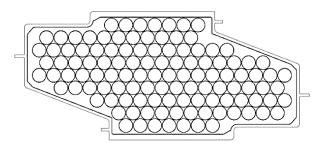
REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-17 COVER 17 AL	2
STANDARD	ZP01-08-17 COVER 17 PC	2
* You must choose one of the 2 options.		

129.00 129.00 15.00 9 15.00 9 15.00 9 100.00 100

Box capacity:



18650 batteries 149 cells



21700 batteries 115 cells

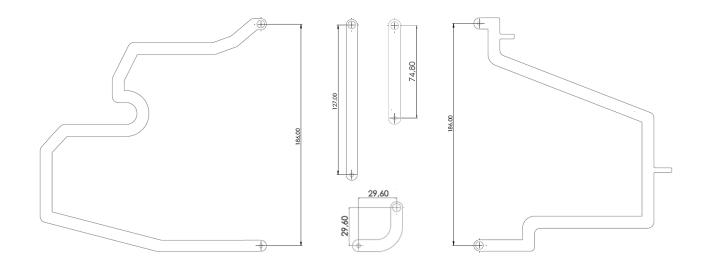


COMBINATION 18:

This is the personalized option, where the clients can make their own configuration that they want according to their needs.

Next, we capture the distances between the canals of the joints, so that you can make the combination or combinations easily and accurately.







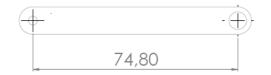
OTHER COMBINATIONS:

This is a new piece ZP01-02-07 BATTERY BOX CE – SMALL with a straight profile. This is shorter than the other piece that also has a straight profile, the ZP01-02- 02 BATTERY BOX CE.

Regarding the previously combinations 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 17, we can get smaller boxes, in case we change the new piece mentioned for the other one or make them larger if you add this piece in the mentioned combinations.

This piece allows us to create more combinations, from the main ones or with the personalized option by joining the existing convenient pieces, always taking into account the measurements of each of them, specified in this manual.

This part has a difference of 52.2 mm compared to the other straight profile, with a total length of 74.80 mm. This measure is dimensioned between the joining centres of this piece as can be seen in the following drawing plan.



Below is a detailed image of the part ZP01-02-07 BATTERY BOX CE - SMALL.



Below is an example of the piece. Exchanging it for part ZP01-02-02 BATTERY BOX CE of combination number 8, you get a smaller box.



COMBINATION 8B ZP01-01-08-B

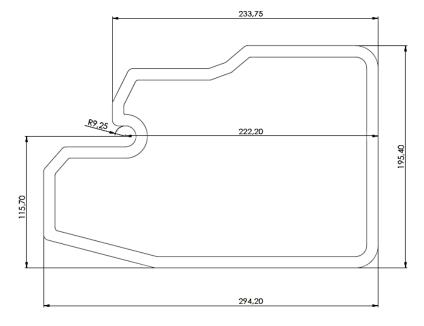


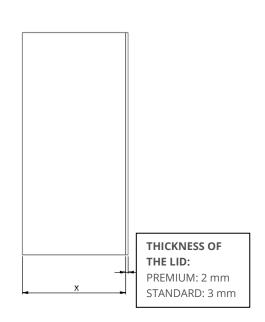
Composition

REFERENCE PIECE	QUANTITY
ZP01-02-01 BATTERY BOX FR	1
ZP01-02-02 BATTERY BOX CE	1
ZP01-02-06 BATTERY BOX CORNER	2
ZP01-02-07 BATTERY BOX CE - SMALL	2
ZP01-04-01 BOLT TORX (3.5 x 10)	30
ZP01-07-01 NYLON WASHER	30

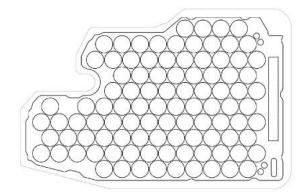
REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-08-B COVER 8B AL	C
STANDARD	ZP01-08-08-B COVER 8B PC	2

* You must choose one of the 2 options.

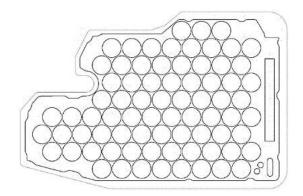




Box capacity:



18650 batteries 96 cells



21700 batteries 72 cells



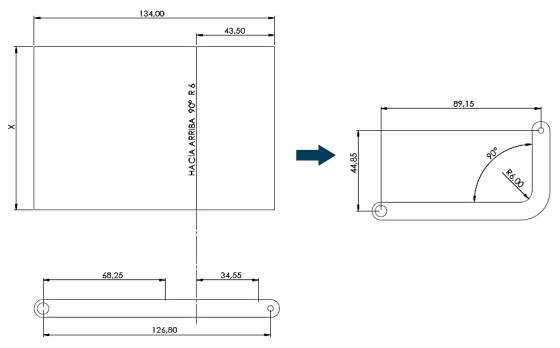
We have a new system that allows us to obtain any shape and size of MODULAR and CASE box.

This system consists of bending the straight profiles of the mother pieces ZP01-02-02BATTERY BOX CE and ZP01-02-07 BATTERY BOX CE – SMALL, obtaining a new personalized piece.

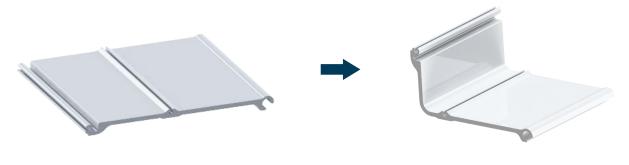
This new part is referenced as ZP01-02-08 BATTERY BOX CE - FOLDED. This can be folded at the convenient point according to the client's needs.

The client must take into account the measurements of this piece after doing the bending process. For part ZP01-02-02 BATTERY BOX CE, the sum of the two folded sides between centres must be 134 mm. And for the part ZP01-02-07 BATTERY BOX CE - SMALL, the sum of the two folded sides between centres must be 81,8 mm.

Below is an example of a drawing plan of this bending system for the part ZP01-02-02 BATTERY BOX CE.



Below, we can see the result of the bending process on the straight profile.





Finally, an example of a box composed with this system is shown. In this case, an exact width was needed because that could not be achieved with the mother pieces. Applying this method, is possible to obtain a MODULAR e CASE box suitable for customer requirements.

COMBINATION 2F ZP01-01-02-F

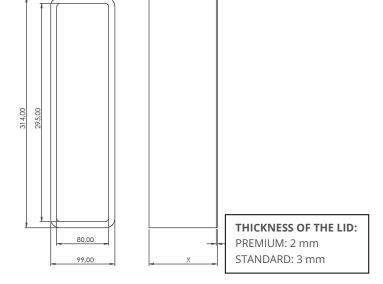


Composition

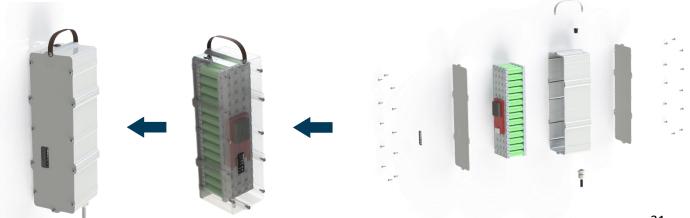
REFERENCE PIECE	QUANTITY
ZP01-02-02 BATTERY BOX CE	2
ZP01-02-08 BATTERY BOX CE - FOLDED	4
ZP01-04-01 BOLT TORX (3.5 x 10)	24
ZP01-07-01 NYLON WASHER	24

REFERENCE LID		QUANTITY
PREMIUM	ZP01-03-02-F COVER 2F AL	2
STANDARD	ZP01-08-02-F COVER 2F PC	2
* You must ch	acce and of the 2 options	

* You must choose one of the 2 options.



Box details:





You can contact our team to obtain a personalized design of a MODULAR e CASE box. You just have to inform us about measurements and characteristics, and we will design it.





We have developed a high quality product, of unsurpassed functionality, with an attractive design and a soft finish, following the strictest environmental criteria



Vefit

+ 34 936 80 09 22 + 34 652 69 93 98

www.modularecase.com info@modularecase.com

C/ Salvador Seguí, 22 08750 Molins de Rei

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Official registration: MODULAR BOX FOR BATTERIES OR OTHER 202230419 USES

PCT/ES2023/070145. A patent application filed under the Patent Cooperation Treaty (PCT) that allows protection for an invention to be sought simultaneously in a large number of countries (152 countries in 2017) by filing an "international" patent application. Legal action will be taken, if someone uses the invention of the **patent-protected** product without authorization.

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