KINGDOM OF BELGIUM

FEDERAL PUBLIC SERVICE ECONOMY, SMEs, SMALL BUSINESSES AND ENERGY

Royal Decree amending certain parts of Chapter 7.1 of Book 3, introduced by the Royal Decree of 8 September 2019 establishing Book 1 on low-voltage and extra-low-voltage electrical installations, Book 2 on high-voltage electrical installations and Book 3 on installations for the transmission and distribution of electrical energy

PHILIPPE, King of the Belgians,
To all, present and future, greetings.

Having regard to the Law of 10 March 1925 on the distribution of electrical energy, Article 21, Part 1;

Having regard to the Royal Decree of 8 September 2019 establishing Book 1 on low-voltage and extra-low-voltage electrical installations, Book 2 on high-voltage electrical installations, and Book 3 on installations for the transmission and distribution of electrical energy;

Having regard to the opinion of the Standing Committee on Electricity, issued on 4 December 2025, pursuant to Article 22, Paragraph 5, of the Law of 10 March 1925 on the distribution of electrical energy;

Having regard to the communication to the European Commission on [DATE] 2025, pursuant to Article 5(1) of Directive 2015/1535/EU of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services;

Having regard to the opinion of the Council of State, issued on [DATE], pursuant to Article 84, Section 1, Paragraph 1, Point 2, of the laws on the Council of State, coordinated on 12 January 1973;

On the proposal of the Minister of Energy,

WE HAVE DECREED AND HEREBY DECREE:

Article 1. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.2, of the Royal Decree of 8 September 2019 establishing Book 1 on low-voltage and extra-low-voltage electrical installations, Book 2 on high-voltage electrical installations and Book 3 on installations for the transmission and distribution of electrical energy, Subsection 7.1.2.2 is supplemented by a paragraph worded as follows:

"**Splitting strap**: split conductor placed against the conductor and attached on both sides of the attachment point. ".

Art. 2. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.3, Subsection 7.1.3.1, of the same decree, the following amendments are made:

1. in the Dutch text, Paragraph 1, the words "moet elektrisch en mechanisch verzekerd worden" are replaced by the words "wordt elektrisch en mechanisch verzekerd";

2. in the Dutch text, Paragraph 2, the words "moet verwezenlijkt worden" are replaced by the words "wordt verwezenlijkt";

3. in the Dutch text, Paragraph 3, the words "moet verwezenlijkt worden" are replaced by the words "wordt verwezenlijkt".

Art. 3. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.3., Subsection 7.1.3.3., Point b., Paragraph 3, of the same decree, in the Dutch text, the words "moeten deze kabels tegen mechanische inwerkingen beschermd worden" are replaced by the words "worden deze kabels tegen mechanische inwerking beschermd".

Art. 4. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.3, Subsection 7.1.3.4, of the same decree, Paragraph 2 is supplemented

by a Point 3, worded as follows:

“3. for temporary overhead high-voltage line supports provided that technical measures (with physical elements) and/or organisational measures offering at least an equivalent level of security are taken (for example preventing access by means of a fence, camera surveillance, access detection). ”.

Art. 5. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.3., Subsection 7.1.3.6., Point c.2., Bullet Point 2, of the same decree, in the Dutch text, the words “moet op 4 m gebracht worden” are replaced by the words “wordt op 4 m gebracht”.

Art. 6. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.4, Subsection 7.1.4.2, Paragraph 1, of the same decree, in the Dutch text, the words “moeten geïsoleerd worden” are replaced by the words “worden geïsoleerd”.

Art. 7. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.5, Subsection 7.1.5.1, Paragraph 1, of the same decree, in the Dutch text, the words “moet verwezenlijkt worden” are replaced by the words “wordt verwezenlijkt”.

Art. 8. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.5., Subsection 7.1.5.2., of the same decree, in the Dutch text, the words “moeten uitgevoerd worden” are replaced by the words “worden uitgevoerd”.

Art. 9. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.1., Paragraph 5, of the same decree, the word “strap” is replaced by the words “splitting strap”.

Art. 10. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.2., Point a.2., of the same decree, in the Dutch text, the words “moeten samengesteld zijn” are replaced by the words “zijn samengesteld”.

Art. 11. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.2, Point b, Paragraph 1, of the same decree, in the Dutch text, the words “moet geen enkele controle op hun weerstand uitgevoerd

worden” are replaced by the words “wordt geen enkele controle op hun weerstand uitgevoerd” and the words “moet de maximum toegelaten belasting berekend worden” are replaced by the words “wordt de maximum toegelaten belasting berekend”.

Art. 12. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.2., Point d.1., of the same decree, in the Dutch text, the words “moeten de bevestigingsstukken van de geleiders aan de isolatoren het verschuiven verhinderen” are replaced by the words “verhinderen de Bevestigingsstukken van de geleiders aan de insulators het verschuiven”.

Art. 13. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point a.1, Paragraph 2, of the same decree, in the Dutch text, the words “moeten beschermd zijn” are replaced by the words “zijn beschermd” and the words “moet verzekerd zijn” are replaced by the words “is verzekerd”.

Art. 14. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point b.2, of the same decree, Paragraph 1 is replaced by the following:

“The supports for overhead high-voltage lines are attached on or in foundations, with the exception of supports for temporary overhead high-voltage lines. ”.

Art. 15. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.3., Point c.1., of the same decree, in the Dutch text, the words “De tuikabels moeten geaard zijn” are replaced by the words “De tuikabels zijn geaard”.

Art. 16. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, of the same decree, Point c.3 is supplemented by a Bullet Point 3, worded as follows:

“- when using temporary overhead high-voltage lines. ”.

Art. 17. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.3., of the same decree, three paragraphs worded as follows are inserted before Point d.1. :

“The requirements described below in Points d.1 to d.10 apply to the supports of low-voltage overhead lines and to Category 1 high-voltage overhead lines.

New supports and modifications to existing supports for Category 2 overhead high-voltage lines are manufactured according to best practices with regard to their mechanical stability.

By way of derogation from the preceding paragraph, it is authorised for existing supports of Category 2 overhead high-voltage lines to meet the rules of good practice of application at the time of their installation with regard to their mechanical stability. ”.

Art. 18. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.1, Paragraph 1, of the same decree, in the Dutch text, the words “moeten berekend worden” are replaced by the words “worden berekend”.

Art. 19. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.1, Paragraph 2, of the same decree, the words “at a temperature of +15 °C with its normal or exceptional maximum force;” are replaced by the words “at a temperature of +15 °C with its normal maximum force;”.

Art. 20. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.2, of the same decree, Paragraph 1 is replaced by the following:

“The wind force F, expressed in N, on the constituent elements of the line is calculated for its normal maximum force and its reduced force for Category 1 overhead high-voltage lines. ”.

Art. 21. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, of the same decree, Point d.3. is replaced by the following: -

“ *d.3. Normal maximum horizontal wind force*

For calculating the wind force on supports, crossbeams and insulators, the dynamic pressure q is chosen to be equal to 0.8 q_b for normal maximum horizontal wind.

For the calculation of the wind force on live, overhead ground, and earth conductors, the dynamic pressure q is chosen to be equal to:

- for spans less than or equal to 100 m 0.7 q_b for normal horizontal wind;
- for spans greater than 100 m 0.5 q_b for normal horizontal wind. ".

Art. 22. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.3., Point d.4., of the same decree, in the Dutch text, the words "moet de in aanmerking te nemen effectieve dynamische druk gelijk genomen worden aan 0.25 qb" are replaced by the words "wordt de in aanmerking te nemen effective dynamische druk gelijk genomen aan 0.25 qb".

Art. 23. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.5, of the same decree, the following amendments are made:

1. The words "The values of the aerodynamic coefficient c are" are replaced by the words "Value of the aerodynamic coefficient c: ";

2. Bullet Point 1 is replaced by the following:

" - live, overhead ground, and earth conductors:

The value of the aerodynamic coefficient is 1.45. ";

3. Bullet Point 2 and Table 7.6 are repealed;

4. in the Dutch text of Bullet Point 3, the words "moeten worden gehanteerd" are replaced by the words "gehanteerd worden";

5. Table 7.7. is renumbered and becomes Table 7.6. ;

6. Table 7.8. is renumbered and becomes Table 7.7.

Art. 24. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.6, of the same decree, the following amendments are made:

1. in Paragraph 1, the words “Table 7.9. ” are replaced by the words “Table 7.8. ”;

2. Table 7.9 is renumbered and becomes Table 7.8;

3. Paragraph 2 is repealed.

Art. 25. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.7, of the same decree, the following amendments are made:

1. The title of Point d.7.1. is repealed;

2. in former Point d.7.1, the words “With the exception of Category 2 high voltage lines supported by lattice metal pylons (see Point 2 below), the following requirements shall apply. ” are replaced by the words “The following requirements shall apply: ”;

3. in the Dutch text of former Point d.7.1, Bullet Point 1, the words “moeten de “netto” doorsneden beschouwd worden” are replaced by the words “worden de “netto” doorsneden beschouwd”;

4. in the Dutch text of former Point d.7.1, Bullet Point 2, Paragraph 1, the words “moeten zodanig berekend worden” are replaced by the words “worden zodanig berekend”;

5. in former Point d.7.1, Bullet Point 2, Paragraph 2, the words “Table 7.10” are replaced by the words “Table 7.9. ”;

6. in former Point d.7.1, Bullet Point 2, Table 7.10 is renumbered and becomes Table 7.9. ;

7. in the Dutch text of former Point d.7.1, Bullet Point 2, Paragraph 3, the words “De herleide doorsnede moet voor de meest ongunstige slankheid berekend worden. ” are replaced by the words “De herleide doorsnede wordt voor de meest ongunstige

slankheid berekend. ";

8. in the Dutch text of former Point d.7.1, Bullet Point 3, Paragraph 1, the words "moet de herleidingsfactor van het gehele stuk bepaald worden" are replaced by the words "wordt de herleidingsfactor van het gehele stuk bepaald";

9. in former Point d.7.1, Bullet Point 3, Paragraph 1, the words "Table 7.10. " are replaced by the words "Table 7.9. ";

10. in the Dutch text of former Point d.7.1, Bullet Point 3, Paragraph 2, the words "moet bepaald worden" are replaced by the words "wordt bepaald";

11. in the Dutch text of former Point d.7.1, Bullet Point 3, Paragraph 3, the words "moet enkel de vermindering van het geheel in aanmerking genomen worden" are replaced by the words "wordt enkel de vermindering van het geheel in aanmerking genomen";

12. in the Dutch text of former Point d.7.1, Bullet Point 4, Paragraph 1, the words "moet de in aanmerking te nemen traagheidsstraal voor de berekening van de herleide doorsnede gelijk zijn aan de minima traagheidsstraal. " are replaced by the words "is de in aanmerking te nemen traagheidsstraal voor de berekening van de herleide doorsnede gelijk aan de minima traagheidsstraal. ";

13. in the Dutch text of former Point d.7.1, Bullet Point 4, Paragraph 3, the words "in welk geval 8/10 van deze lengte moet genomen worden. " are replaced by the words "in welk geval 8/10 van deze longte wordt genomen. ";

14. in the Dutch text of former Point d.7.1, Bullet Point 5, Paragraph 1 is replaced by the following:

"Wanneer een stuk tegelijkertijd gedrukt en gebogen est, worden de spanningen met gelijk teken voortkomende uit beide krachten samengesteld. De drukspanning wordt daarbij berekend op de herleide doorsnede overeenstemmend met het meest waarschijnlijke knikvlak en de buigspanning

wordt verhoogd om rekening te houden met de weerstand tegen zijdelingse knik van de op druk belaste hoekstijl. ";

15. in the Dutch text of former Point d.7.1, Bullet Point 5, Paragraph 2, the words "moet gelijk genomen worden aan: " are replaced by the words "wordt gelijk genomen aan: ";

16. in the Dutch text of former Point d.7.1, Bullet Point 6, Paragraph 3 is replaced by the following:

"Voor de met enkelvoudige afschuiving belaste bouten worden de hierboven voorgeschreven grenswaarden voor de gemiddelde druk op het diametrale contactoppervlak met 1/5 verminderd. ";

17. in the Dutch text of former Point d.7.1, Bullet Point 7, the words "Gelaste verbindingen moeten, voor de hoogste kracht waaraan zij worden onderworpen, een veiligheidscoefficiënt hebben" are replaced by the words "Gelaste verbindingen hebben, voor de hoogste kracht waaraan zij worden onderworpen, een veiligheidscoefficiënt";

18. Point d.7.2 is repealed.

Art. 26. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.8, of the same decree, the following amendments are made:

1. The title of Point d.8.1. is repealed;

2. In the Dutch text of former Point d.8.1, the word "moeten" is repealed;

3. Point d.8.2 is repealed.

Art. 27. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.3., Point d.9., of the same decree, in the Dutch text, the words "Houten palen moeten voldoen aan" are replaced by the words "Houten palen voldoen aan" and the words "moeten houten palen berekend worden" are replaced by the words "worden houten palen berekend".

Art. 28. In Annex 3, Book 3, Part 7, Chapter

7.1, Section 7.1.6, Subsection 7.1.6.3, Point d.10, of the same decree, the following amendments are made:

1. In the Dutch text, Paragraph 1, the words “moet berekend worden” are replaced by the words “wordt berekend”;

2. Paragraph 4 is replaced by the following:

“It is equal, under the assumption of the greatest reversing moment, to at least 1.25 when the wind force is calculated for its normal maximum force or its reduced force. ”.

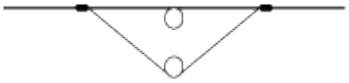
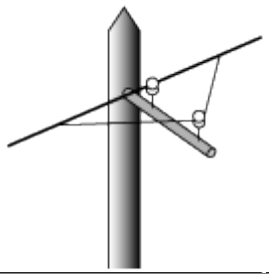
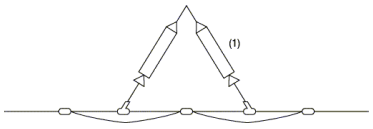
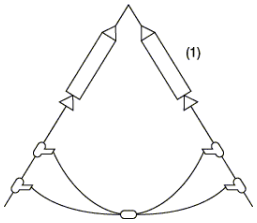
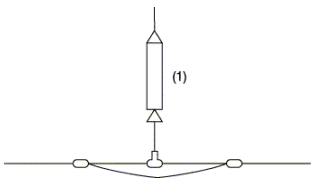
Art. 29. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.3., of the same decree, Point d.11. is repealed.

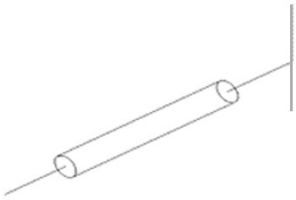
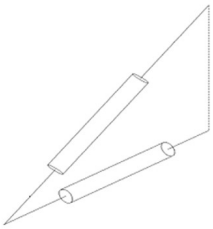
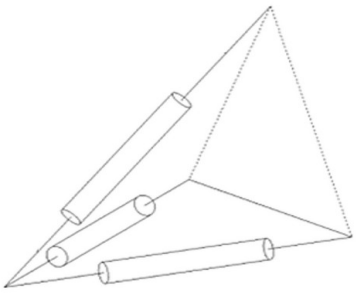
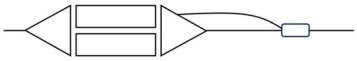
Art. 30. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.4, Point b.1, of the same decree, Paragraph 2 is replaced by the following:

“One solution proposed is to provide a splitting strap. ”.

Art. 31. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.4, Point b.2, of the same decree, Table 7.11 is replaced by the following:

Table 7.10. Types of safety devices

Type: safety device	Illustration	Requirement
a. with rigid insulators	*Figure 7.2. Rigid insulators - Top view*  *Figure 7.3. Rigid insulators - Perspective* 	Each conductor in a line equipped with rigid insulators is attached to the support by means of at least two insulators, sufficiently spaced apart to prevent a grounding arc occurring at one insulator from propagating to another. The line conductor is attached to one of the insulators and connected to each of the additional insulators by a conductor of the same cross-section and of the same type to which it is connected on both sides of the attachment point. The attachment of these conductors to their insulators and the connection of the conductors to each other are achieved using special fasteners capable of preventing any slippage without compromising the mechanical strength of the conductors.
b. With suspension type insulators with double insulator chains	*Figure 7.4. Semi-anchor type - Elevation view*  (1) Insulators *Figure 7.5. Anchor type - Elevation view*  (1) Insulators	Each conductor of a line equipped with suspension type insulators is held by means of attachment pieces at the ends of at least two chains of insulators. The conductor is attached to each chain by means of an anchor or a suspension type clamp providing a semi-anchor. A splitting strap consisting of a conductor is attached by means of fasteners on either side of the terminal pieces of the insulator chains. This splitting strap can be connected to the conductor by one or more additional fasteners located between the attachment points to the insulator chains. The splitting strap, on the one hand, and the connection between the conductors of the anchor type safety device, on the other hand, are made up of a conductor of the same cross-section and of the same nature as that which is used for the line, or equivalent.
c. with suspension type insulators with a single chain of insulators	*Figure 7.6. Single chain of insulators - Elevation view*  (1) Insulators	Each conductor on a line equipped with suspension type insulators is held by a single chain of insulators. The conductor is split by a splitting strap consisting of a conductor of the same cross-section and of the same type as that which is used for the line and attached on either side of the fastening point of the latter to the chain of insulators.
d. Insulating pylon brackets	*Figure 7.7.a Example of a bracket with insulating arm with an insulator - Perspective*	The brackets with insulating arms are primarily composed of at least one insulator (or an insulator chain) and metal parts that connect the conductors via the construction elements with the support. They are used as enhanced safety devices. Brackets with insulating arms compensate for the mechanical forces of the conductors combined with the forces caused by wind or

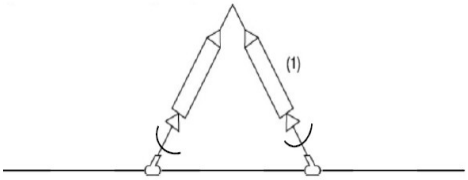
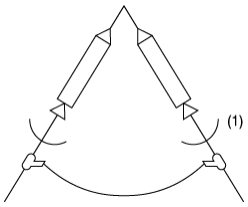
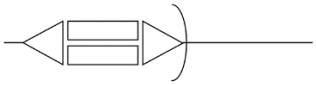
	 *Figure 7.7.b. Example of a bracket with insulating arm with two insulators - Perspective*  *Figure 7.7.c. Example of a bracket with insulating arm with three insulators – Perspective* 	ice loads.
e. for stop supports and end supports	*Figure 7.8 Example of splitting an insulator chain to a stop or end support* 	The live conductor is attached to the stop support or end support by means of two insulators (two rigid insulators or two chains of insulators or a combination of each of these types) in such a way that, if it detaches from one of the insulators, it is still held by the second. This can be achieved in accordance with Figure 7.5, Figure 7.8 or by an equivalent method.

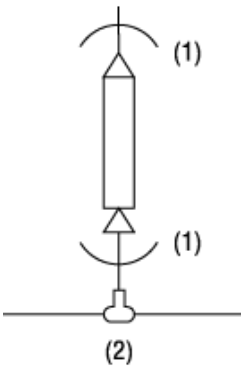
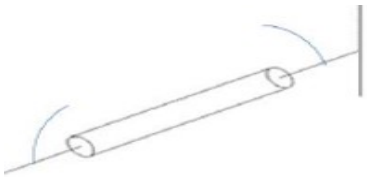
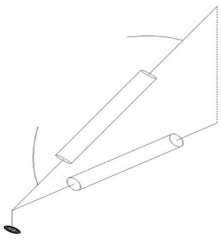
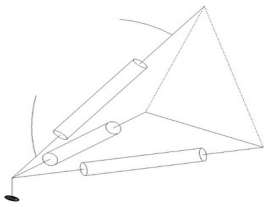
Art. 32. In Annex 3, Book 3, Part 7, Chapter 7.1., Section 7.1.6., Subsection 7.1.6.4., Point b.2., Paragraph 2, of the same decree, the words “Table 7.12 provides conditions of use for some of these safety devices. ” are

replaced by the words “Table 7.11 provides conditions of use for some of these safety devices. ”.

Art. 33. In Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.4, Point b.2, of the same decree, Table 7.12 is replaced by the following:

Table 7.11. Conditions of use

Illustration	Conditions
	For suspension type safety devices (*Figures 7.4.*, *7.5.* and *7.6.*) the following conditions are met: 1. The insulator chains have individually undergone tests carried out in accordance with best practices in the field; 2. The distance between the terminal piece of each insulator chain and the outer attachment of the splitting strap must be at least equal to: • 0.4 m for Category 1 overhead high-voltage lines; • (0.50 + 0.004 (U_N - 50)) m, with a maximum of 1.50 m for Category 2 overhead high-voltage lines. U_N is equal to the nominal phase-to-phase voltage in kV.
Figure 7.9. Double chain device without splitting strap – Semi-anchor type  *Figure 7.10.a Double chain device without splitting strap – Anchor type*  (1) Protective device *Figure 7.10.b Example of a double-chain insulator device without splitting strap – Anchor type to a stop or end support*  *Figure 7.11. Single chain device without splitting strap*	On the other hand, for double-chain insulator devices of the semi-anchor type (Figure 7.4.) of the anchor type (Figure 7.5.), single-chain safety devices (Figure 7.6.) and attachment to a stop or end support (Figure 7.8.), the splitting strap is not mandatory when the following conditions are simultaneously met: 1. The line must be equipped with at least one protective device ensuring rapid arc extinction in the event of a fault; 2. The conductors have a cross-sectional area equal to or greater than: • for Category 1 high voltage: 90 mm² if they are made of aluminium and 70 mm² if they are made of copper, aluminium alloy with or without a steel core or equivalent materials, or aluminium with a steel core or equivalent materials; • For Category 2 high voltage: 220 mm² if they are made of aluminium and 125 mm² if they are made of copper, aluminium alloy with or without a steel core or equivalent materials, or aluminium with a steel core or equivalent materials; 3. Insulator chains are equipped with an overhead ground device: • at their end near the conductor for double-chain semi-anchor type (*Figure 7.9.*) and anchor type (Figure 7.10.a and 7.10.b) devices; • at each end for the single-chain device (*Figure 7.11.*) ; 4. When using the double-chain anchor type insulator device, the conductor attachment pieces to the chains and the overhead ground device attachments to the conductor prevent any slippage without compromising the conductor's mechanical strength; 5. When using the so-called double-chain semi-anchor device (Figure 7.9) and the single-chain device (Figure 7.11), at the

 (1) Overhead ground device (2) Reinforcement device	point of its attachment to the insulator chain, the conductor is equipped with a device designed to: • reinforce this point of suspension; • dampen the vibrations; • protect the conductor in the event of a persistent arc that jumps beyond the overhead ground device.
Figure 7.12.a Example of a bracket with insulating arm with an insulator - Perspective  *Figure 7.12.b Example of a bracket with insulating arm and two insulators - Perspective*  *Figure 7.12.c Example of a bracket with insulating arm and three insulators – Perspective* 	1. The brackets with insulating arms were individually subjected to tests carried out in accordance with best practices regarding their mechanical resistance and dielectric quality. 2. The insulating pylon brackets do not have a splitting strap, but meet the following cumulative conditions: 1) the line is equipped with at least one protective device ensuring rapid arc extinction in the event of a fault; 2) for Category 2 high-voltage lines, the conductors must have a cross-sectional area of 220 mm² or greater if they are made of aluminium, and 125 mm² or greater if they are made of copper, aluminium alloy with or without a steel core or equivalent materials, or aluminium with a steel core or equivalent materials; 3) at least one insulator (or a chain of insulators) is fitted with an overhead ground device at both ends.

Art. 34. The following amendments are made to Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.5, Point b.3, of the same decree:

1. in Paragraph 2, the words “Table 7.13. ” are replaced by the words “Table 7.12. ”;

2. Table 7.13 is renumbered and becomes Table 7.12.

Art. 35. The following amendments are made to Annex 3, Book 3, Part 7, Chapter 7.1, Section 7.1.6, Subsection 7.1.6.6, Point a.1, of the same decree:

1. in Paragraph 2, the words “Table 7.14. are replaced by the words “Table 7.13. ”;

2. Table 7.14 is renumbered and becomes Table 7.13.

Art. 36. This decree enters into force on the first day of the second month following its publication in the Belgian Official Gazette.

Art. 37. The Minister responsible for Energy is charged with the implementation of this decree.

Signed in

By the King:
The Minister for Energy,

Mathieu Bihet