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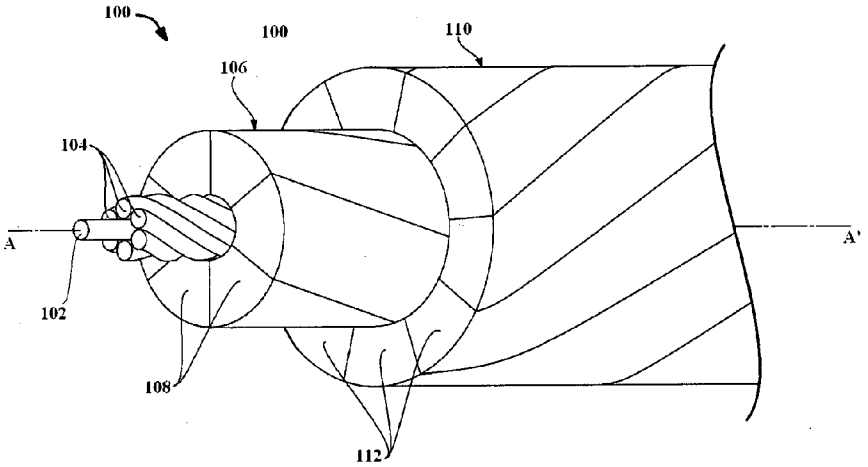

(57) Abstract: An electrical power conductor (100, 300) having the advantages of improved ampacity, robustness, reduced losses, lesser sagging and better aging resistance is provided. The electric power conductor comprises multiple strands (108, 112, 306, 310) for conducting electricity; at least two of the multiple strands are made of an alloy selected from (I) an aluminum alloy comprising 0.30-0.40 wt. % Si and 0.30-0.40 wt. % Mg and (II) an aluminum alloy comprising 0.15-0.25 wt. % Cu, 0.15-0.25 wt. % Fe and less than 0.07 wt. % Mg. The cross-sectional shape of each of the at least two of the multiple strands is non-circular. The at least two of the multiple strands are laid around the longitudinal axis of the power conductor in a manner such that within the cross-section of the power conductor, the cross-section of each of the at least two of the multiple strands is not in tangential contact with the cross-section of at least one of the strands adjacent to it.

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AMENDED CLAIMS
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1. [Presently amended] An electrical power conductor having a longitudinal axis, said electrical power conductor comprising:
multiple strands for conducting electricity, said multiple strands being laid around the longitudinal axis, wherein
at least two of said multiple strands are made of a metal alloy selected from following two alloy types:

I. an Aluminum alloy comprising:
   a. 0.30-0.40 weight % of Si and
   b. 0.30-0.40 weight % of Mg

II. an Aluminum alloy comprising:
   a. 0.15-0.25 weight % of Cu
   b. 0.15-0.25 weight % of Fe
   c. less than 0.07 weight % of Mg;

cross-sectional shape of each of said at least two of said multiple strands is non-circular; and
said at least two of said multiple strands are laid around the longitudinal axis in a manner such that within a cross-section of the electrical power conductor, cross-section of each of said at least two of said multiple strands lies in contact with cross-section of at least one of the strands lying adjacent to it at more than one points.

2. [Presently amended] An electrical power conductor having a longitudinal axis, said electrical power conductor comprising:
multiple strands for conducting electricity, said multiple strands being laid around the longitudinal axis, wherein

at least two of said multiple strands are made of a metal alloy selected from following two alloy types:

I. an Aluminum alloy comprising ~~of~~:
0.30-0.40 weight % of Si and
0.30-0.40 weight % of Mg

II. an Aluminum alloy comprising ~~of~~:
0.15-0.25 weight % of Cu
0.15-0.25 weight % of Fe
less than 0.07 weight % of Mg;

cross-sectional shape of each of said at least two of said multiple strands is non-circular; and
said at least two of said multiple strands are laid around the longitudinal axis in a manner such that within a cross-section of the electrical power conductor, cross-section of each of said at least two of said multiple strands does not lie in tangential contact with cross-section of at least one of the strands lying adjacent to it.

3. [Presently amended] An electrical power conductor having a longitudinal axis, said electrical power conductor comprising:
multiple strands for conducting electricity, said multiple strands being laid around the longitudinal axis, wherein
at least two of said multiple strands are made of an Aluminum alloy selected from following two alloy types:

I. an Aluminum alloy comprising:
0.30-0.40 weight % of Si and
0.30-0.40 weight % of Mg

II. an Aluminum alloy comprising:
0.15-0.25 weight % of Cu
0.15-0.25 weight % of Fe
less than 0.07 weight % of Mg;

cross-sectional shape of each of said at least two of said multiple strands is non-circular; and

said at least two of said multiple strands are laid around the longitudinal axis in a manner such that within a cross-section of the electrical power conductor, cross-section of each of said at least two of said multiple strands lies in contact with cross-section of at least one of the strands lying adjacent to it at more than one points.

4. [Presently amended] An electrical power conductor having a longitudinal axis, said electrical power conductor comprising:
multiple strands for conducting electricity, said multiple strands being laid around the longitudinal axis, wherein
at least two of said multiple strands are made of an Aluminum alloy selected from following two alloy types:

I. an Aluminum alloy comprising:
0.30-0.40 weight % of Si and
0.30-0.40 weight % of Mg

II. an Aluminum alloy comprising:
0.15-0.25 weight % of Cu
0.15-0.25 weight % of Fe
less than 0.07 weight % of Mg;

cross-sectional shape of each of said at least two of said multiple strands is non-circular; and
said at least two of said multiple strands are laid around the longitudinal axis in a manner such that within a cross-section of the electrical power conductor, cross-section of each of said at least two of said multiple strands does not lie in tangential contact with cross-section of at least one of the strands lying adjacent to it.

5. [Presently amended] An electrical power conductor having a longitudinal axis, said electrical power conductor comprising:
multiple strands for conducting electricity, said multiple strands being laid around the longitudinal axis, wherein
each of said multiple strands are made of an Aluminum alloy selected from following two alloy types:

I. an Aluminum alloy comprising:

0.30-0.40 weight % of Si and
0.30-0.40 weight % of Mg

II. an Aluminum alloy comprising:
0.15-0.25 weight % of Cu
0.15-0.25 weight % of Fe
less than 0.07 weight % of Mg;

cross-sectional shape of each of said multiple strands is non-circular; and
each of said multiple strands are laid around the longitudinal axis in a manner such that within a cross-section of the electrical power conductor, cross-section of each of said multiple strands lies in contact with cross-section of at least one of the strands lying adjacent to it at more than one points.

6. [Presently amended] An electrical power conductor having a longitudinal axis, said electrical power conductor comprising:
multiple strands for conducting electricity, said multiple strands being laid around the longitudinal axis, wherein
each of said multiple strands are made of an Aluminum alloy selected from following two alloy types:

I. an Aluminum alloy comprising:
0.30-0.40 weight % of Si and
0.30-0.40 weight % of Mg

II. an Aluminum alloy comprising:
0.15-0.25 weight % of Cu
0.15-0.25 weight % of Fe
less than 0.07 weight % of Mg;

cross-sectional shape of each of said multiple strands is non-circular; and
each of said multiple strands are laid around the longitudinal axis in a manner such that within a cross-section of the electrical power conductor, cross-section of each of said multiple strands does not lie in tangential contact with cross-section of at least one of the strands lying adjacent to it.

7. [Previously Presented] An electrical power conductor as claimed in claim 1 or claim 2 or claim 3 or claim 4 or claim 5 or claim 6 wherein said electrical power

conductor further comprises of a central core, said central core lying symmetrically around the longitudinal axis.

8. [Previously Presented] An electrical power conductor as claimed in claim 1 or claim 2 or claim 3 or claim 4, wherein the cross-sectional shape of said at least two of said multiple strands includes at least two sides.

9. [Previously Presented] An electrical power conductor as claimed in claim 5 or claim 6, wherein the cross-sectional shape of each of said multiple strands is trapezoidal.