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Method of safeguarding electrical switchgear, in particular, against imitation

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Description

The invention relates to a method according to the precharacterizing clause of Claim 1.

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At the present time it is possible to see that, in particular from so-called low wage countries, more or less well counterfeited electrical switchgear is being pushed onto the European market more and more frequently. Many of these counterfeits are so good that they can easily be confused with original switchgear. If, then, as a result of such a counterfeit of switchgear, damage is caused because of a fault, for example non-response in the case of an overcurrent or in the case of a short circuit, or if, for example, a person is killed because a residual-current circuit-breaker does not trigger, then there is the problem that when the original manufacturer cannot prove that the relevant device does not come from his production, under certain circumstances considerable claims for compensation can be made against the manufacturer.

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It has been proposed to identify such electrical switchgear by means of a sticker made of security paper. However, in the case of a fire there is the risk that a security sticker of this type will be destroyed; in addition, it needs some space, in particular if it is stuck to the broadside.

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The object of the invention is to provide a method of the type mentioned at the beginning with which electrical switchgear is identified in such a way that it is safeguarded against counterfeiting.

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According to the invention, this object is achieved by the features of Claim 1.

According to the invention, specific points on an item
10 of switchgear are printed with ink which cannot be destroyed in a fire.

For this purpose, use is made of a specific pigmentation which is protected under the trademark
15 "GD-ATP" (Anti-Piracy Technology) for the company Gieseke & Devrient, Munich.

Some items of switchgear have a specific colour imprint, which is used as proof of origin for the
20 manufacturer; for example, this imprint can be a strip coloured with a specific ink, or the company logo and the like; the pigment or the pigments can then be mixed in with the ink for these imprints.

25 It is also possible to incorporate the relevant pigmentation into such components of the device as are used in all the switchgear from the relevant manufacturer. Thus, for example, the switch knob for an item of electrical switchgear is suitable for this
30 purpose, since this switch knob is used in an essentially identical way both in line-protection circuit-breakers and residual-current circuit-breakers or auxiliary switches. Therefore, according to the invention, the pigments are mixed into the switch knob,
35 so that these pigments can be detected with specific detection methods and devices, even when the item of switchgear has been destroyed, for example by fire.

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In the case of residual-current circuit-breakers, the release is often also counterfeited; it goes without saying that the aforementioned pigments can be mixed either into the housing of the release or in an imprint
5 on the release. This achieves the situation where the residual-current release can also be detected as having been produced by the manufacturer.

Electrical switchgear, and incidentally other devices
10 as well, are for the most part inserted into a package, which generally consists of board and in which specific wall sections are stuck to one another. It is easily possible to open these adhesive bonds of the packaging using fine tools, to pack the counterfeits into the
15 packaging and to close it again. In order to safeguard against this, it is expedient, at the bonding points of the packaging, to stick on seals which are provided with an imprint which likewise again contains the abovementioned pigments.

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The invention has been described with reference to switchgear; of course, it can also be used in all other products which can be counterfeited, for example spare parts for motor vehicles, aircraft or the like.

Patent Claims

1. Method of demonstrating unauthorized imitation of
a device, in particular of electrical switchgear
or the like, characterized in that a colour
imprint is applied to the outer or inner surface
of the housing of the device or the like or to the
device itself, the said colour imprint containing
pigments that can be detected only by special
means, methods and apparatus, for example infrared
examination and the like.
2. Method according to the precharacterizing clause
of Claim 1, in particular for line-protection
circuit-breakers and residual-current
circuit-breakers which have a manually operated
pivoting lever, characterized in that pigments
that can be detected only by special means,
methods or apparatus are mixed in with the
material of the pivoting lever.
3. Method according to the precharacterizing clause
of Claim 1 or 2, for a residual-current
circuit-breaker which contains a residual-current
release, characterized in that the housing of the
residual-current circuit-breaker is printed with
an ink with which pigments that can be detected by
special means, devices or the like have been
mixed.
4. Method of safeguarding a package for electrical
switchgear, the said package consisting of board,
and some walls of the package being stuck to one
another, characterized in that at the bonding
points a seal is stuck on which has been printed
with an ink which contains pigments that can be
detected only by special means, devices or the
like.