

Leseprobe

Christiani

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Vocational training

Commissioning as per DIN VDE 0100–600



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Vocational training –

Commissioning as per DIN VDE 0100-600

Section: Trainee

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Dr.-Ing. Paul Christiani GmbH & Co. KG

Foreword

Commissioning as per DIN-VDE 0100-600 is a key element of the specialist tests “Operating technology electronics engineers” and “Mechatronic technicians”.

However, this is not limited solely to the practical execution of the tests. Trainees must also prove knowledge of the relevant theoretical background knowledge during the tests. The following questions can be seen as a “formula” for test preparation:

Why is testing carried out?

How is the system prepared for the test?

How is the test device prepared for the test?

Which test results are considered OK for the system?

The purpose of working through the tasks, in addition to acquiring practical knowledge of the test process, is also to verify that the trainee is familiar with all of the essential technical background information.

Remember that tests under DIN VDE 0100-600 must be carried out by qualified electricians (with test experience). Electrical devices, on the other hand, may also be tested by trained persons.

This is a clear reference to the expertise required for testing in accordance with DIN VDE 0100-600.

Often, the test results need to be analysed in the context of the specific system to which they relate. This action is what links theory with practice, setting a requirement that only a qualified electrician can meet.

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01

The standard DIN VDE 0100-600 forms the basis for commissioning.

What statement does this standard make in section 6.1?

02

What are the primary objectives of tests carried out in accordance with DIN VDE 0100-600?

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03

Who is permitted to perform tests in accordance with DIN VDE 0100-600? Why is this the case?

04

What does the term “electrical safety” describe?

05

What is the definition of the term “initial testing”?

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06

What are the components of initial testing in accordance with DIN VDE 0100-600?

07

Evaluation takes place after testing. This evaluation requires the qualified electrician to possess a high level of expertise and experience in the testing of electrical systems.

Why are these standards set at such a high level? Give some examples.

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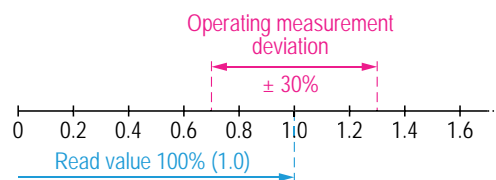
08

What are the requirements for measurement devices used in initial testing as defined in DIN VDE 0100?

09

The operating measurement deviation is $\pm 30\%$.

Explain what the diagram shows.



Measure the low-impedance consistency of the protective conductor: **Factor 1.3**

Measure the insulation resistance: **Factor 0.7**

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09

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10

Operating systems generally use the TN system to obtain power.

State some of the characteristics of this network system.