



شركة أبوظبي للتوزيع
Abu Dhabi Distribution Co.

**Guideline
For
Design, Testing and Installation
Of Busways**

GL.GN.01

Effective Date : 01/02/2012

Procedure No: GL.GN.01

Issue : 2

Revision : 1

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Approved by:

**Design, Testing and Installation
Of Busways**

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The cross sectional area of the parallel busways should be as per ADDC requirements. The maximum number of the parallel busways is three runs.

15 Recommended Busbar cross section

The current rating of the copper busbars published by Copper Development Association is given under Appendix C. Manufacturers shall follow these guidelines in sizing the busbar. These ratings apply for single bars on edge operating in a 40°C ambient temperature with 50°C temperature rise.

For any other cross sections that are not included in the table under Annexure C, the manufacturer shall submit the current carrying capacity calculation as per IEC guideline and at the design mean ambient temperature of 50°C.

15.1 Re-rating for different current or temperature rise conditions

Manufacturer/Assembler shall submit a calculation sheet supporting the maximum current carrying at 50°C mean ambient temperature with respect to the type tested unit (if the type test is carried out at a different ambient condition). These calculations shall be endorsed by the testing lab and or the third party certifying agency.

16 Lighting & Small Power Busways & Modular Wiring

Lighting & Power Socket bus duct and modular wiring are considered part of building wiring and regulated by the Electricity Wiring Regulation issued by RSB. It shall comply with respective specifications under the Wiring Regulation. ADDC LVSGC approves these methods in principle provided that the RSB set aspects are incorporated (like tinning of copper, colour coding etc.). Also, the introduction of these methods of LV power distribution within the building necessitate full type test in line with the related IEC standards.

17 Guideline for carrying out type test

17.1 ADDC Approved Third Party Inspectors/Certifying Agents

The following is the list of ADDC approved third party inspectors/Certifying agents who shall carryout the test/certify the type test certificate. ADDC will accept the type test certificate issued and certified by one of these. The manufacturers are advised to

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type test their product as per the Guidelines stated in the document and certify accordingly by one of these agencies.

It is mandatory that the test lab shall be certified as per ISO/IEC 17025 or Equivalent. The manufacturer shall submit documents to certify this, as a part of the prequalification document.

1. DEKRA Certification B.V.
2. ASTA
3. LOVAG members as per the list below
 - i. ACAE – Italy
 - ii. ALPHA at VDE (VDE Testing & Certification Institute), Germany
 - iii. Applus+LGAI - Spain
 - iv. ASEFA - France
 - v. Intertek Semko AB - Sweden
 - vi. SGS Belgium, NV Division, SGS CEBEC – Belgium
4. Underwriters Laboratories (UL)

Updated list of the ADDC approved Third Party Inspectors/Certifying Agencies shall be published periodically in ADDC website: www.addc.ae.

17.2 Test Requirements

As per ADDC requirement, it is mandatory that the manufacturers should carryout the following type tests as per IEC 60439 -2 or updated IEC standards at the time of testing.

The busbar trunking system shall be type tested with plug-in tap off fitted to it (as applicable).

Clause	Description of the Test	Requirement
8.2.1	Verification of Temperature Rise Limits	Mandatory for all