

**CONNECTION CONDITIONS FOR ELECTRICAL ENGINEERING INSTALLATIONS
JAARBEURS B.V.**

Version July 2017

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Appendices:

Form 4.1 - Inspection report on electrical installations

Form B3 - Inspection report on electrical installations at TMU stands

In accordance with NEN 3140: Mr Herman van Rooyen is the person responsible for installations and the contact person on behalf of Jaarbeurs.

Section 1 - Jaarbeurs terms and definitions

Term	Definition
Stand	An area intended for exhibition purposes or activities.
Energy network	The electrical installation at the location of the exhibition floors, intended for connection of an electrical installation in a stand.
Participant	The natural person or legal entity on the instructions of which or for the account of which an electrical installation is installed.
User	The party making use of an electrical installation.
Operating voltage	Connection to the permanent building installation intended for the connection of electrical tools for erection and disassembly, fitted as wall socket 230 V/10 A.
Service duct	Duct in exhibition hall floors in which technical installations are fitted for the connection of installations.
Gangway	The free space between stands.
Special production	A lease of one or more rooms to an organiser for an event, not being a trade fair with participants.

Section 2 – Legal liability

Regulation of the liability of the installer in relation to Jaarbeurs:

Provision	Contents
2.1	<p>The installer is liable for injury to persons or damage to goods suffered by Jaarbeurs, in as far as such damage is caused by the performance of the work and is the fault of the installer or assistants deployed by the installer, if and in as far as such liability is covered by the installer's insurance.</p> <p>On the basis of its field of responsibility for installations, Jaarbeurs should always place orders for the power supply lines (distribution groups) to be realised with its regular installer. The Jaarbeurs regular installer has recognised technicians, all of which are appointed in accordance with the NEN 3140 standard.</p> <p>The regular installer has an obligation to inspect connections of installations of the third party installer, before power is supplied.</p> <p>The technician performs a part-inspection here, which means that his part of the installation has already been checked. Faults detected during the part-inspection must be reported to the inspector.</p> <p>The independent inspector then conducts a full inspection.</p> <p>The connection of third party installations via a distribution group (electrical circuit supplying one or more distributors) is a responsibility of the regular installer alone. In order to ensure that one responsible party can always be held liable in emergencies, the Jaarbeurs regular installer, as the party responsible for work on behalf of Jaarbeurs, is the sole provider of all main connections (distribution groups) in the electrical circuit.</p>

Obligations of the installer:

Provision	Contents
2.2	<p>The installer is required to cover its liability risk through insurance in accordance with the customs applying in the sector. To that end, the installer will at least contract corporate liability insurance with an insured sum of at least €2,500,000 per incident, with a series of related incidents applying as a single incident, and of €5,000,000 per year.</p>
2.3	<p>At the request of Jaarbeurs, the installer will submit the documents showing that it has contracted this insurance. The documents submitted must show that the insurance relates to works for events in or in the vicinity of exhibition buildings such as the Jaarbeurs complex in Utrecht.</p>
2.4	<p>If combined main connections are installed by a third party, that party must comply with the following conditions:</p> <ul style="list-style-type: none"> - this installer may never use the connections as a distribution group in an electrical circuit. - this installer must be a recognised installer with demonstrable recognition by/under the Recognition of Installation Companies Foundation (SEI) / Regulation for the Recognition of Electrical Engineering Installers and Licence Holders (REI). - this recognised installer must have an appointment policy in compliance with electrical engineering laws and regulations, as described in the NEN 3140, NEN 1010 and NEN 8020-20 standards. - this recognised installer must be able to provide proof of the educational qualifications of electrical engineers on request, and will submit electrical engineering diplomas on request. - this recognised installer must be able to submit inspection certificates for all electrical engineering facilities, distribution boxes and cabling to Jaarbeurs. - if combined connections are used, this recognised installer must check what is connected to a final circuit. This will be inspected by an independent inspector, for which the relevant Client must pay Jaarbeurs a supplement.
2.5	<p>The installer must observe the regulations declared applicable in the performance of</p>

	the work.
2.6	In all cases, the installer must instruct the user of the electrical installation or the persons appointed by the user with regard to commissioning the installation and keeping it operational. It is the responsibility of the installer to ensure that the instructions are understood and that action takes place in accordance with these instructions. If necessary, the instructor will supervise this.
2.7	If the user of the electrical installation acts in contravention of the installer's instructions, the installer will immediately notify the Jaarbeurs employees.
2.8	If there is a direct danger to people or goods because the instructions have not been followed or for other reasons, the installer will immediately take measures to eliminate the danger and will have the Jaarbeurs employees warned. In no case may the installer leave the location at which the danger arises until the danger has been eliminated.
2.9	If damage occurs to the property of stand holders, installers, lessors, etc through shortcomings of Jaarbeurs, this must be reported to Jaarbeurs without delay, so that a damage report can be drawn up.

Section 3 – Procedure for connection to the Jaarbeurs energy network

Provision	Contents
3.1	The installation and connection of electrical installations may only be performed by persons with sufficient professional skills, in compliance with the provisions of the latest edition of the NEN 3140 standard.
3.2	<p>A connection to the Jaarbeurs energy network can only be obtained through the submission of a request to Jaarbeurs. Each connection can serve as the power supply for one stand only.</p> <p>Connections to the Jaarbeurs energy network can be divided into the following two groups:</p> <p><u>Group A - Supply points</u> Power supply points may consist of a:</p> <ol style="list-style-type: none"> 1. feed cable with a 230 V socket; or 2. feed cable with a fuse box to which end users are or can be connected; or 3. feed cable with a fuse box and sockets; or 4. connection intended for a capacity of 80 kW or more, for special productions, fitted with a switch disconnecter. <p>All supply points in Group A are realised by or on the instructions of Jaarbeurs. An inspection report on each supply point is available on request from the regular installer, as provided for in the current NEN 1010 standard.</p> <p><u>Group B - Electrical installations</u> Electrical installations may be installed by or on the instructions of:</p> <ol style="list-style-type: none"> 1. Jaarbeurs; or 2. a Jaarbeurs lessee; or 3. a participant for a stand forming part of Trade Mart Utrecht (TMU); or 4. a participant for a stand. <p>Jaarbeurs will conduct random checks of installations in group B for compliance with the current NEN 1010 standard, using inspection form 4.1. Inspection form B3 will be used for installations in group B3.</p>
3.3	Expansions or changes to electrical installations with an adverse effect on safety after the inspection report has been drawn up are not permitted.
3.4	The electrical installation in a stand forming part of TMU must be inspected for electrical safety by or on behalf of the participant at least once per calendar year. A report on this inspection, in accordance with form B3, must be made available to Jaarbeurs.
3.5	Jaarbeurs employees are authorised to disconnect a connection if the installation is rejected or if there are doubts about safety.
3.6	<p>In the event of a dispute concerning the compliance of the electrical installation with the prescribed standards and regulations, with an adverse effect on safety, an inspection will be conducted by an independent expert. The outcome of this inspection is binding on all parties.</p> <p>An expert in the field of safety in relation to electrical installations will be regarded as an independent expert. The expert will be appointed by the Netherlands Standardisation Institute (NNI) in Delft at the request of Jaarbeurs.</p> <p>The costs of this inspection are borne by the party found to be in the wrong. Claims for damage arising as a result of the dispute, in any form whatsoever, are ruled out for both parties.</p>

Section 4 - Applicable standards and regulations

Provision	Contents
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4.1	<p>The following applies with regard to the general terms and conditions for the supply of electrical power:</p> <p>Connection conditions for electrical engineering installations General provisions and provisions relating to electrical engineering installations of both a temporary and a permanent nature, connected to the Jaarbeurs energy network, including provisions of a procedural and technical nature relating to systems and quality requirements concerning electrical engineering installations to be set up temporarily, connected to the Jaarbeurs energy network.</p>
4.2	<p>The following applies with regard to the operation of electrical installations:</p> <p>Current NEN-EN 50110-1. Operation of electrical installations – General provisions</p> <p>Current NEN 3140. Operation of electrical installations – Additional Dutch provisions for low-voltage installations</p> <p>‘Operation’ refers to the installation, management, maintenance and inspection of installations and the provision of instructions to the user of the electrical installations.</p>
4.3	<ol style="list-style-type: none"> 1. The current NEN 1010 ‘Safety provisions for low voltage installations’ and NEN 8020-20 ‘Events – Electrical Installations’ apply with regard to the electrical installation. The provisions of NPR 5310, Netherlands Code of Practice, accompanying NEN 1010, must also be applied. 2. For existing dismantlable prefab stands, the NEN 1010 edition that applied at the time when the dismantlable prefab stand was produced, but at least NEN 1010, applies.
4.4	<p>With regard to the use of electrical equipment, products and electrical tools, the latest versions of the relevant electrical engineering product standards and European directives apply.</p> <p>The compliance of the electrical equipment, products and electrical tools with these product standards and European directives is shown by CE marking on the relevant appliance, product or tool.</p>
4.5	<p>With regard to machinery, the European directive applies. The electrical installation of these machines must comply with EN 60204 ‘Electrical installations in machines’.</p> <p>The compliance of the machine with the European machinery directive and EN 60204 is shown by CE marking on the machine.</p>
4.6	<p>If machines that are exhibited or demonstrated could present a risk to persons or goods, additional safety measures must be taken to eliminate the risk. Additional measures could include extra screens or fences for persons, realising a distance from the source of the danger.</p>
4.7	<p>If machines, electrical appliances, electrical products and electrical tools without CE marking are exhibited or demonstrated, safety measures must be taken to create the same level of safety as measures taken on the grounds of which a CE marking would be awarded.</p>
4.8	<p>If additional measures are taken in accordance with 4.6 or 4.7, Jaarbeurs must always be notified of the nature of the additional measures in writing in advance. If necessary, Jaarbeurs will conduct an inspection and may prescribe further additional measures. These measures must be taken before the machine, the product or the electrical tool is exhibited or demonstrated.</p>
4.9	<p>The Electromagnetic Compatibility (EMC) Directive applies with regard to electrical appliances, products, machines and electrical tools.</p> <p>The compliance of the electrical equipment, products and electrical tools with this product standard and European Directive is shown by CE marking on the relevant appliance, product or tool.</p>

Section 5 - Points for attention regarding standards and regulations

NEN 1010 - Safety provisions for low-voltage installations

The electrical installation in a stand must comply with the provisions of the current NEN 1010 standard. The provisions of this standard referred to below require an additional explanation or an interpretation tailored to the situation.

Part 2: Terms and definitions

Provision	Contents
21.2	Power supply point (of an electrical installation). <i>Notes: Connecting equipment supplied by Jaarbeurs to which the electrical installation of a stand is connected is deemed to be the 'power supply' point.</i>

Part 3: General features

Provision	Contents
312.2	Earthing method for the system. <i>Notes: The electrical installation in a stand may only be set up as described in provision 312.2.1a (TN-S system).</i>
313.1.1c	(Power supplies) <i>Notes: In determining the security against overcurrent and overvoltage, the short distance between the transformer and the power supply, and the large diameter of the supply cables must be taken into account.</i>
314.2	(Set-up of installations) <i>Notes: The 'Parts of installations' described here can consist only of electrical equipment with a power rating of 20 kW or more.</i>
33.2	(Chapter 33 - Compatibility) <i>Notes: Measures must be taken to prevent damaging consequences of the properties referred to in this provision at least in installations other than the installation concerned.</i>

Part 4: Protective measures

Provision	Contents
412.2.2	Covers <i>Notes: 'Class I' fuse boxes must be fitted with covers with sufficient mechanical strength, due to the external influences to be expected. (See also provision 413.2)</i>
44	Overvoltage <i>Notes: Jaarbeurs has a low-voltage network that is completely underground</i>
Appendix 729B	Escape routes and entrances <i>Notes: the area in a stand in which the switching and distribution unit is fitted is qualified as 'escape route'. Code BD2 applies in this area.</i>
422	Areas with a fire risk as a result of processed or stored equipment. <i>Notes: The area in a stand in which the switching and distribution unit is fitted is qualified as an 'area with easily combustible materials', for which Code BE2 applies.</i>

Part 5: Choice and installation of electrical equipment

Provision	Contents
513	Accessibility

Notes: Connections beneath raised floors of stands may only be qualified as 'accessible connections' if these floors can be opened with common hand tools.

Part 6: Inspection

Provision	Contents
	Chapter 61 - First inspection <i>Notes: Inspections must be performed, in as far as applicable and relevant to the installation.</i>
61.4	(Report on the first inspection) <i>Notes: The prescribed inspection report must at least contain the categories and inspection points shown in forms 4.1 and B3 (see Appendices).</i> <i>Jaarbeurs may require access to the prescribed inspection report, which must be submitted on request. Jaarbeurs will request the inspection report from the party responsible for installing the installation.</i> <i>If the inspection report cannot be submitted, Jaarbeurs has the right to disconnect the connection to the energy network.</i> <i>See section 3 of these connection conditions for the procedure for connection to the Jaarbeurs energy network</i>

Part 7: Supplementary and special provisions

Notes: The areas or situations referred to in this Part may form part of a stand. In these cases, the relevant provisions apply in full.

Category 701 - Spaces with a bath or shower

Provision	Contents
701.11	General <i>Notes: This category applies if baths or showers are connected to a water supply.</i>

Category 713 - Furnishings

Provision	Contents
713.1	Subject, scope and fundamental principles <i>Notes: This category applies if the said furnishings are actually connected.</i>

Category 724 - Electrolysis areas

Provision	Contents
	The above standards apply. <i>Notes: Jaarbeurs equates a stand at which 'accumulator batteries with open cells are set up' with an electrolysis area.</i>

Category 718 - Meeting buildings, sports buildings and station buildings

Provision	Contents
718.55.3	Emergency lighting for safety purposes <i>Notes: All Jaarbeurs areas accessible to the public are fitted with general emergency lighting based on the values prescribed in the current NEN 1010 standard in lux on a free floor. Where necessary, the installer must also provide for autonomous emergency lighting in such a way that compliance with the prescribed value in lux is realised.</i> <i>Where a stand can only be accessed via one or more narrowed access ways, such as doors, the installer must fit autonomous emergency lighting above each of those access ways, fitted with an escape route sign in accordance with NEN 6088 (pictograms).</i> <i>Autonomous emergency lighting has an autonomy of at least one hour.</i>

Category 711 - Events and stands

Provision	Contents
711.4	(Protective measures) See also 415.2 <i>Notes: Metal parts of a stand must be treated as 'foreign conductive parts'.</i>
711.5	(Choice and installation of electrical equipment) <i>Notes: The use of 'extension leads' is permitted, provided that the length does not exceed 5 metres.</i>
711.52	(Choice and installation of wiring systems) <i>Notes: Code AG2 applies for a stand at Jaarbeurs.</i>

Section 6 - Supplements to standards and regulations applying at the Jaarbeurs complex

Provision	Contents
6.1	Wall sockets of the building installation intended for operating voltage may not be

	used as a power supply for an electrical installation. Use of these sockets to perform work also takes place at the user's own risk.
6.2	Work on wiring systems in the service ducts is not permitted, other than by or on behalf of Jaarbeurs staff authorised for that purpose. Manhole/drain covers may not be moved.
6.3	No changes of any kind whatsoever may be made to the power supply point, other than by or on behalf of Jaarbeurs staff authorised for that purpose.
6.4	Parts of an electrical installation may not be separated by a gangway.
6.5	The simultaneously connected capacity must be divided as evenly as possible over all phases.
6.6	The power factor ($\cos \Phi$) of the entire electrical installation at the location of the power supply point may not be less than 0.85.
6.7	Electrical equipment must carry current CE marking, be suitable for the application and be adequately protected against the external influences to be expected. (See also section 4)
6.8	Water treatment appliances must be connected to separate final circuits. The temperature may not be set below 60 °C.
6.9	Rail lighting systems may only consist of original factory parts forming part of the system.
6.10	Rail lighting systems may only receive power at one point and may not be used as a throughput to supply (wall) sockets, unless the system is manufactured to be suitable for this.
6.11	Low-voltage lighting systems must be connected with transformers intended especially for that purpose, fitted with safeguards.
6.12	Transformers intended for low-voltage lighting systems must display details such as the nominal voltage, capacity and security measures to be applied.
6.13	Transformers intended for low-voltage lighting systems must be mounted out of reach in accordance with the mounting guidelines of the relevant manufacturer.
6.14	Ballast lamp circuits must form a single unit with the accompanying light source.
6.15	Display cases, text panels, logos, etc fitted with internal lighting must have an enclosed, fire-retardant construction. Mounting of electrical components must be fireproof.
6.16	Text panels or light fittings with the standard text 'EXIT', EMERGENCY EXIT', etc or equivalent pictograms intended as exhibits must be installed in such a way that confusion among the public can be deemed impossible.
6.17	The use of heating appliances as exhibition object is permitted only if these comply with the following conditions: <ul style="list-style-type: none"> • maximum attainable surface temperature of 40 °C; and • the appliance is connected to a separate final circuit in the fuse box; and • the appliance is freestanding and cannot directly or indirectly heat any flammable materials that could cause a fire.
6.18	All metal parts as well as standing trusses and stands must be earthed.
6.19	Cables beneath raised floors must be uninterrupted and have a minimum core diameter of 2.5 mm ² . Pursuant to the Building Decree, all cabling must comply with Euro class B2ca and the NEN 8012 standard from 1 July 2017. Daisy chaining via multiple power distribution blocks for infrastructural stand installation is not permitted. Splitters and the use of sockets/extension leads without earthing are not permitted.