

**servifira/**

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/Merchandising /CO<sub>2</sub> emissions /General terms  
and conditions /Stand contractor registration form**

## **FAQs**

### **What does include an 'electrical switchboard' order?**

The electrical switchboard order includes the electrical box rental, installation, dismantling, technical assistance, power consumption for all the show and related local taxes.

It is not included the cost of the Electrical Project in case this is required (for installations with more than 50 kW on one stand). Likewise, electrical connectors are not supplied (cables, extensions, adaptors, etc.).

Under no circumstances exhibitor's machinery will be connected or handled by Fira technicians.

### **How can I figure out what switchboard will suit the best for my stand?**

Each exhibitor has to estimate the total power consumption (in Watts or Amps) required for the work of all the electrical devices at the stand (lights, AV equipment, catering machinery, etc.). Summing the consumption of each device will give the estimate power supply needed (1000 Watts = 1kW).

Special requirements must also be considered, for example, the 24h power supply for a fridge or a Tri-Phase power with Cee Plugs for large machinery.

If you have a Shell Scheme or a Meeting Room Package, you do not need to estimate the power consumption for the lighting as the stand already includes a lighting panel for this aims.

### **What does it mean 24h and Daytime switchboard/electricity?**

Daily time switchboards will be running during the show opening time. These will be connected 1 hour before the show opening and disconnected 1 hour after closing.

24h switchboards will be running permanently during all the congress duration.

### **I need a high amount of daily time power supply but I have a small fridge as well. What should I order?**

It is recommended to hire two different switchboards: a daily time high powered switchboard and a 24h low powered switchboard for the fridge.

# 6 Electrical Switchboards

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### If I order a switchboard, should I order electricity consumption as well?

All switchboard orders include the power consumption corresponding to the power supply (W) of the electrical box.

### Where can I order the electrics?

Electrics have to be ordered online, through the ServiFira eCommerce. If you need assistance please contact ServiFira team for help: [mwc@firabarcelona.com](mailto:mwc@firabarcelona.com)

### What switchboard types are available to be hired?

#### Single-Phase (230V)

- 1.2kW (6A) – Schuko plug integrated
- 3.3kW (16A) - Schuko plug integrated
- 6.6kW (32A) – with 2x 16A Single Phase (230V) outputs

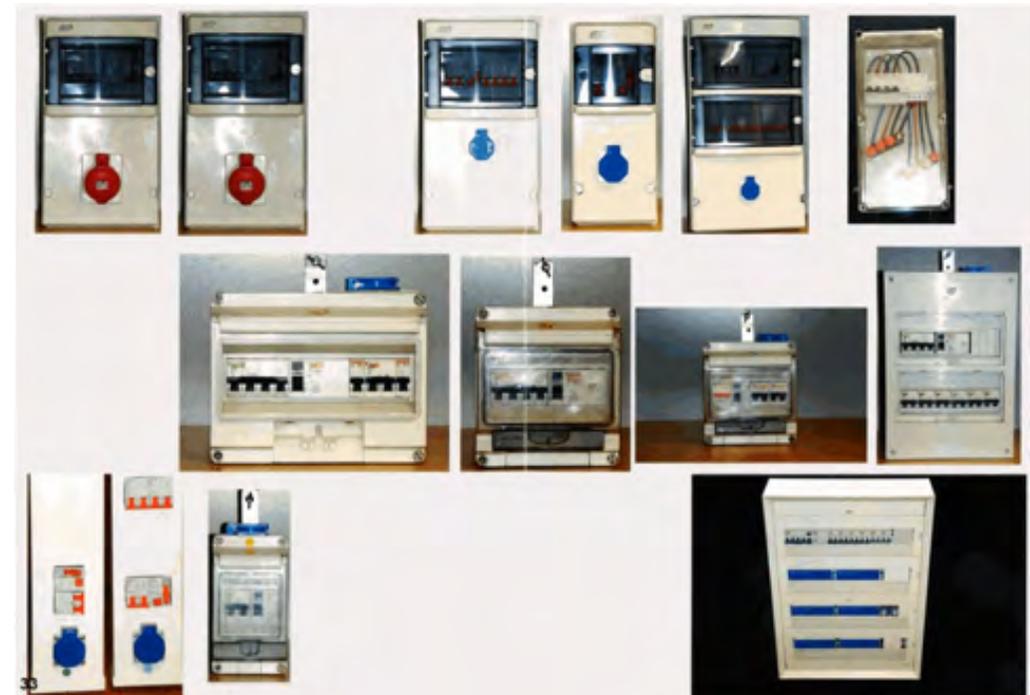
#### Three-Phase with Circuit-Breaker (16A)

- 9.9kW (16A) – with 3x 16A Single Phase (230V) outputs
- 19.9kW (32A) - with 6x 16A Single Phase (230V) outputs
- 24.9kW (40A) - with 9x 16A Single Phase (230V) outputs
- 39.2kW (63A) - with 12x 16A Single Phase (230V) outputs

#### Three-Phase with CEE Form (400V)

- 6.2kW (10A) – with 1x CEE Form 16A
- 9.9kW (16A) - with 1x CEE Form 16A
- 19.9kW (32A) - with 1x CEE Form 32A
- 24.9kW (40A) - with 1x CEE Form 63A
- 39.2kW (63A) - with 1x CEE Form 63A
- Other switchboards above 49.8kW/ 80A are available upon request

Following pictures are some switchboard examples. Form and size of these devices can vary from one stand to other.



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### Residual-current device (RCD) Sensitivity

All electrical equipment is protected with 30mA RCD, a high sensitivity protection aimed for direct contact and life injury protection. Some Three- Phase 32A switchboards can be protected with 300mA RCD, these are available upon request.

### How many plugs will I have?

This will depend on the Exhibitor Package you have booked. Please check the Exhibitor Manual or contact our team.

### What is a Schuko plug connection?

It is the common kind of plug-in used for AV equipment, catering machinery, mobile phone chargers, etc. This plug is normally used on circuits with 230 V, 50 Hz, for currents up to 16 A. It is compatible with Europlugs.



### What kind of plug-ins are available for single-phase switchboards? If I need more plug-ins how can order it?

Single- phase switchboards have single Schuko plug-ins integrated on the electrical box. If you need additional plug-ins there are single and double socket stripes available to be hired through the ServiFira eCommerce. These power stripes will be connected to the switchboard and can be placed over all your stand area. Additional sockets are provided with 10 m extension lead.

Single/ double socket examples:



### What is a CEE plug connection?

A CEE Plug is a type of connection used for big machinery and three-phase switchboards with a capacity of 400V. These plugs are not available for single phase switchboards.

CEE "Female" forms (5P+N+E) provided with Fira switchboards are compatible only with CEE 5 pin "Male" plugs.



### What is a Circuit – Breaker connection?

A circuit breaker is an automatically operated electrical switch designed to protect an electrical circuit from damage caused by overload or short circuit. Its basic function is to detect a fault condition and interrupt current flow. A circuit breaker can be reset (either manually or automatically) to resume normal operation.

Any Three-phase switchboard with circuit-breaker ordered as additional electrical box for a Space Only package, will have one or more single-phase Schuko (16A) outputs, depending on the total switchboard power capacity.



### What is an Electrical Project?

In accordance with Spanish law, ordering 50 kW or more will activate a mandatory Electrical Assessment and there will be a corresponding extra cost.

# 6 Electrical Switchboards

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### **If I order a switchboard, would I need to provide an ELECTRICAL PROJECT too?**

Electrical Projects are compulsory for all the orders including switchboards above 50 kW or when all switchboards at the same stand sum more than 50 kW. Please bear in mind that all Exhibitor Packages include a default switchboard (3.3kW or 6.6kW) that must be considered.

### **If I have 51kW of consumption, is the Electrical Project compulsory as well?**

Yes, all power supplies above 50kW at the same stand must have an Electrical Project done before the corresponding electrical installation is done.

### **When the electrical supply will be available at my stand?**

All switchboards will be connected and ready to use maximum 48h before the congress starts. In most of the cases these could be connected before. In case you need it in advance contact ServiFira team or address to the nearest Exhibitor Service Desk.

All switchboards will be automatically interrupted at 18:00h the afternoon after congress ends. If you need electrical supply after the established time, it can be requested and justified to ServiFira team or the nearest Exhibitor Service Desk almost 24 hours in advance.

### **Where should I place the switchboard?**

You can choose the best location for your switchboard at your best convenience within the stand area. In case you have a preferred location for your switchboard at the stand area, you will be requested to fill in the Switchboard & Socket Location Form through the Event Manual or to send a technical floorplan if you are ordering a switchboard through ServiFira.

Due to security reasons it is recommended to install switchboards hanging on walls and make them accessible at any time.

If you have a Space Only Package the switchboard will be dropped at the place you have pointed out on the technical floorplan of your stand.

If you have an Exhibitor Packages with modular structures, switchboard will be hanged on the modular wall, at the aluminum profile edge in between panels.

### **Can I place the switchboard on the floor?**

Due to security reasons it is recommended to have the switchboard above the ground floor, hanging on a wall. In any case all switchboards must be accessible at any time.

### **How can I show where does the switchboard or plug-ins have to be installed?**

If you want to choose the place where the switchboard you have included in the Stand Package by default, please fill in the Switchboard & Socket Location Form through the Event Manual

If you are ordering a new switchboard through ServiFira eCommerce, during the online ordering process you will have the chance to locate your switchboard on a virtual map of your stand or to upload your own technical plan to the site.

### **Can I bring my own switchboard and also order one from Fira?**

ONLY ONE qualified company can be responsible for the electrics of each stand.

If you order the electrical switchboard with ServiFira, we would be in charge of all the installation. In this case, partial or entire intervention of other companies would not be allowed.

# 6 Electrical Switchboards

## FAQs

### Where does the installation come from?

All main supply installations will come from the Service Chests placed all over the venue ground floor (electricity, water, Internet, compressed air, antennas and analogue phone lines). You can check the location of the nearest Service Chest at the Technical Showplan.

Service Chest must remain accessible at all times. Sometimes Service Chests are shared by several stands so supply for all neighbor stands will come from the same Service Chest. In that case it is highly recommended to install a platform at the stand with a Service Chest.

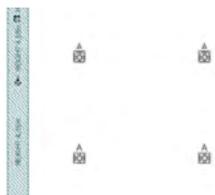


### How can I have more power than the supported by the service chest I have available?

When you need a high powered switchboard or several switchboards at the same place at your stand and these overcome the capacity of the Service Chest then a special connection will be needed. This consists in bringing the power supply from some other Service Chest and it incurs an extra cost for this additional installation.

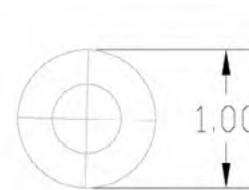
### How can I know where is the Service Chest that will be providing my stand?

You can find the exact situation of all Service Chests at the Technical Showplan of the venue. Service Chests are marked with an 'A'.



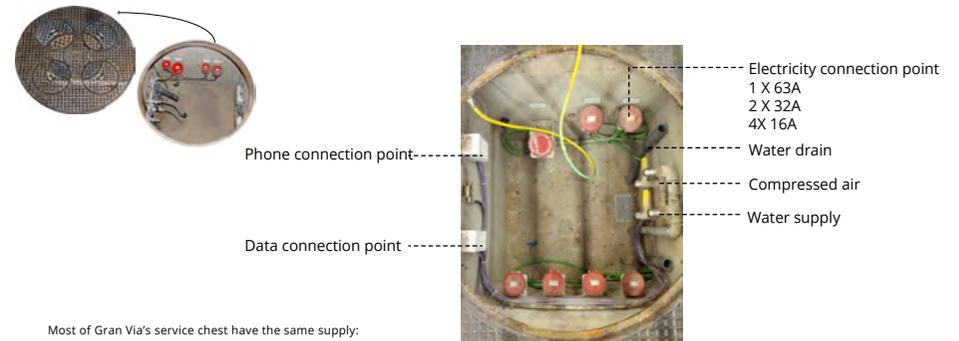
### What is the size of the Service Chest?

It has 1 m of diameter.



### What are the Service Chest capacity? What technical features each Service Chest has?

Important note: due to a limited amount of electricity supply available, extra cost may be incurred over and above the listed price, when ordering additional power, especially for late orders.



Most of Gran Via's service chest have the same supply:

- III 400 V ( CETAC with 5 holes )
- 7 connections: 1X 63 amp, 2X 32A, 4X 16A
- Compressed air: 2 hoses per chest, 575 litres / min. 6.5 bar.
- Water supply: 2 per chest, 1/2 inch, 4 bar, waste is 32mm.

Power supply main conductors will not have any kind of connection. It must be made in one piece, between the Fira supply box and the main circuit breaker of the stand electric distribution switchboard. Connections with Cee Forms, Powerlock or similar are not allowed in this segment. All the supply boxes and the service chests of Fira must remain accessible.

At Montjuic venue, the multiple conductor cable will be provided in its tips of ring terminals with a minimum diameter of 6 mm and a maximum of 10 mm. The connection to the supply boxes of the Fira must be performed only by authorized personnel of Fira. Before that, the required documentation needs to be presented (See Legal procedures section).

At Gran Via venue, connections until 63A will be carried out through a Cee form of an appropriate intensity (16, 32 and 63A, three - phase). The connection to the service chest must be made by the stand electrical installer who will note the Fira base number which is used.

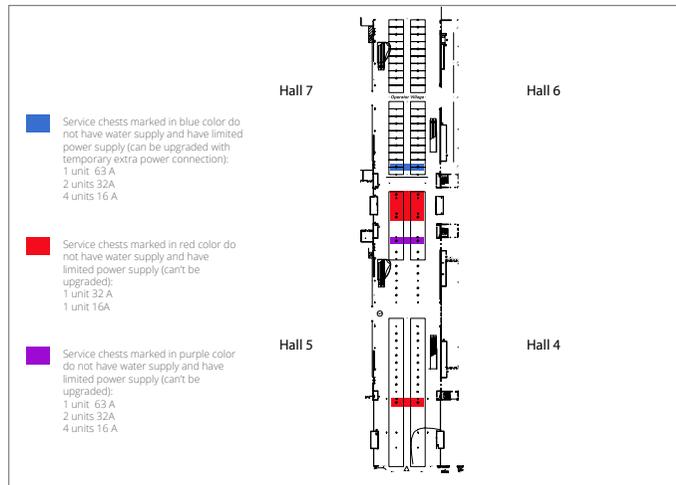
# 6 Electrical Switchboards

## FAQs

### Are all the Service Chests the same?

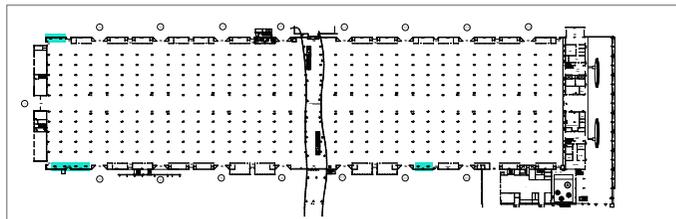
There are some exceptions at the Gran Via venue. Some area like outdoors, Hall2 or the area under the Walkway in between Halls 4, 5, 6 and 7 have specific Service Chests with no water drain or with limited electrical connections. Please contact ServiFira for further details.

#### Under walkway between Halls 4,5,6 and 7



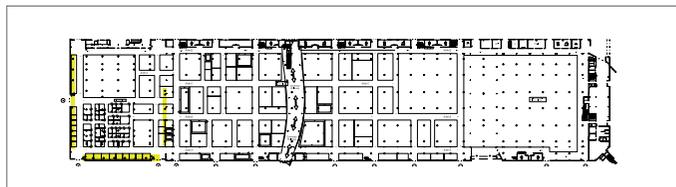
#### Hall 3

Service chests marked in blue color have limited power supply: 1 unit 32 A, 2 units 16 A.

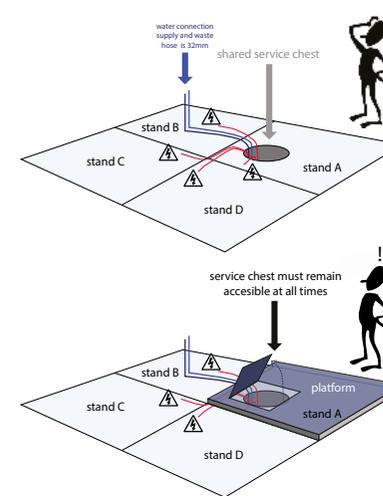


#### Hall 2

Service chests marked in yellow color do not have water supply.



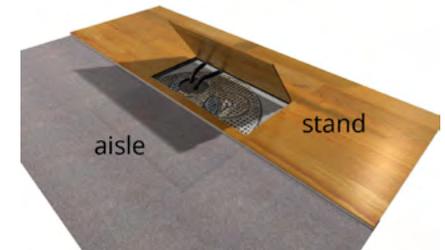
### Can the Service Chests be covered?



Whenever a service chest is shared between more than one stand in one island, it must remain accessible at all times (through a hatch).

In order to have a hatch, we recommend a platform of 50mm for electrical cables only, and 100mm if a water connection is planned for any of the neighbouring stands.

If during build up or show any cable gets unplugged for some reason, the chest needs to be accessed by the technical teams.



Whenever a service chest is half covered by a division wall or is at the limit of the stand, the area around the chest must remain accessible.

### If I want to use my own switchboards, how should I proceed?

All switchboards must be legalised locally, installed by an officially qualified and authorized electrician and the power supply have to be ordered through ServiFira. If the exhibitor requires so, there can be additional costs for special installations. Please contact your ServiFira agent for further details.

# 6 Electrical Switchboards

## FAQs

### What are the regulations for the exhibitor's own switchboards?

All the installations should be carried out according the current ELECTROTECHNICAL LAW TENSION LEGISLATION AND COMPLEMENTARY REGULATIONS, must be done by an official qualified electrician authorised by the Industry Department at the Generalitat de Catalunya, who should fill in the corresponding electrical installation certificate (official certificate).

Those electricians who do not have the official Catalan Electrician License, will have to register themselves mandatorily in person in whichever of their offices.

Once this has been carried out, it will be necessary the electrician to be registered with an EIC (Inspection and Control Entity), in Fira's case this is: TÜV RHEINLAND ICT, S.A. – in order to carry out the verification of the electrical installations.

This can only be carried out by E.U. electricians. Therefore, for those non-EU electricians, the electrical switchboards must be ordered directly from ServiFira. If the switchboards are not ordered through ServiFira, then the stand-builder/exhibitor should order this service to an official certified electrician from Catalonia or a European electrician that has carried out the above mentioned procedure beforehand.

Those stands that require an electrical approval of the installation by an electrician that is from another company, should order the electrical switchboard from ServiFira. If the electrical switchboard is not ordered from ServiFira, the stand-builder or exhibitor should order this service from an external company in order to revise and approve the electrical installation. It is mandatory for all those exhibitors that do not order a stand or electrical switchboard from ServiFira, to fill out the Electrical Power Request Form in order to have electrical power in the stand. The electrical consumption will invoiced before the exhibition/congress, and payment must be received by Fira in order to obtain the approval of the installation and then have power in the stand.

The electrical connections in the pavilion halls can only be done by Fira Barcelona's Technical Service Department and will be carried out once the electrical installations have been approved and authorised by the Industry Services Department.

In the inlet of the stand's electrical installation it will be necessary to install a thermomagnetic switch and a differential according to the characteristics of the power requested and with all the necessary protections for the installation's existing circuits.

All those installations requiring over 50KW of power you will need to present an Electrical Project issued and duly endorsed by a Qualified Technician. We remind you that the 50KW are per stand, independently if the space is shared with other companies (1 contract = 1 stand = 1 project).

The Organization will not be held responsible for any damages or losses that can be originated from the interruptions in the power supply that depends on the electric company. We also remind you that that the electrical connections in the Gran Via venue are carried out using three-phase CEEPLUG connectors.

### If I want to share the space with a neighbor stand, what restrictions will I find?

In relation to grouping several stands located in the same isle exhibitors must bear in mind:

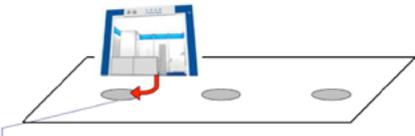
- Only one exhibiting company and contact will be responsible for that space.
- Only one exhibitor will be able to hire a switchboard as different companies cannot be feeding the same switchboard. Two different exhibitors (spaces) cannot share 1 electrical installation.
- According to law on industrial safety it should be noted that in case of accident involving responsibility (civil or criminal) the signature reflected in legalization would be legally responsible. According to the Industrial Safety any anomaly in the registration process of the installation and any misuse of it is regarded as a serious offense.

# 6 Electrical Switchboards

## FAQs

**SCENARIO 1:** normal use of the service chest

**SCENARIO 1: NORMAL USE OF THE SERVICE CHEST**



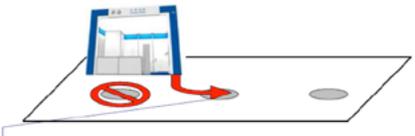
**SERVICE CHEST**

Available on each service chest:  
 1 x 63 A CEE PLUG  
 2 x 32 A CEE PLUG  
 4 x 16 A CEE PLUG

The switchboard / machine can be connected directly to one of the 7 CEE Plugs female available on each chest.

**SCENARIO 2:** using a distant service chest

**SCENARIO 2: USING A DISTANT SERVICE CHEST**



**SERVICE CHEST**

Available on each service chest:  
 1 x 63 A CEE PLUG  
 2 x 32 A CEE PLUG  
 4 x 16 A CEE PLUG

If the closest service chest hasn't any free CEE Plug of the requested type, a distant service chest can be used to provide the power.

**SCENARIO 3:** providing an additional cee plug (63 A) in the service chest

**SCENARIO 3: PROVIDING AN ADDITIONAL CEE PLUG (≥ 63 A) IN THE SERVICE CHEST**

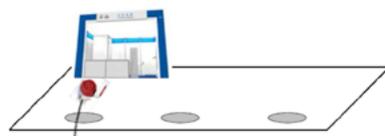


If an extra CEE Plug (≥ 63 A) is needed in any service chest, it can come from the technical gallery.

It'll be like the ones already located in the service chest (16, 32, or 63 A).

**SCENARIO 4:** providing a CEE plug from + 63A up to 125A

**SCENARIO 4: PROVIDING A CEE PLUG from + 63 A up to 125 A**



If an extra CEE Plug (from more than 63 A up to 125 A) is needed in any service chest, it can come from the technical gallery.

In this case, an electrical protective box must be placed in the technical gallery.

**SCENARIO 5:** providing more than 125A connection using terminal connectors

**SCENARIO 5: PROVIDING MORE THAN 125 A CONNECTION USING RING TERMINALS**



If more than 125 A are needed in the same point, it's necessary to bring ring terminals / connectors (see image) from the technical gallery.

In this case, an electrical protective box must be placed in the technical gallery.