

New modular sockets
Connect everywhere

Introduction

Modular sockets allow the connection of devices, tools or electrical and electronic non modular equipment in civil and industrial electrical switchboards.

ABB has a very wide range of modular sockets, which includes 38 models conforming to 5 national standards – Italian, French, German, English, Swiss – suitable for use in around 180 countries. The modular sockets have local quality approvals, attesting their conformity with applicable regulations.

Versions with integrated voltage indicator lights and fuse complete the range.

The ABB modular sockets range is available with the following options:
- Voltage indicator light
- Integrated fuse to selectively protect loads and maintain continuity of service
- IP30 protective cover (when closed)



Voltage indicator light

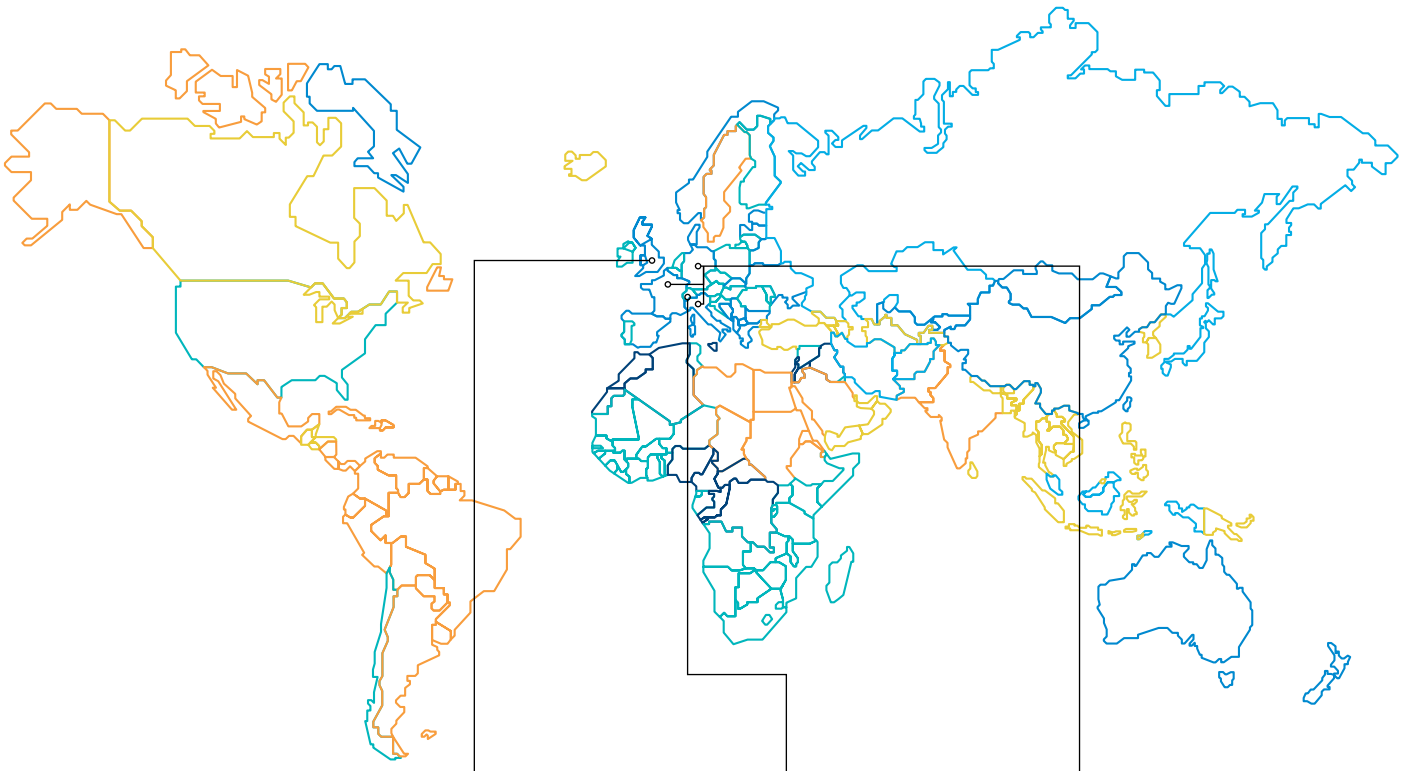


Integrated fuse



Protective cover

A world of solutions





M1363
BS (UK) standard
BS1363 standard



M1011
Swiss Standard
SEV 1011 standard



M1170
Italian-German dual standard

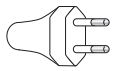
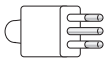
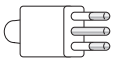
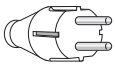
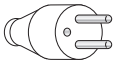
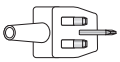
M1173
Italian-German P30 standard
CEI 23-50 standard

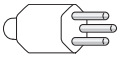
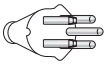
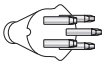
M1174
French standard
NF C 61 314 standard

M1175
German standard
DIN VDE 0620-1 standard

Socket selection table
Your solution in the blink of an eye

Series selection

	M1175	M1173	M1170	M1174	M1363	M1011
 Europlug 10A	■	■	■	■		■
 Italian 10 A		■	■			
 Italian 16 A			■			
 Schuko 10 A / 16 A	■	■	■			
 French 10 A / 16 A	Pluggable but not earthed	Pluggable but not earthed	Pluggable but not earthed	■		
 British 13 A					■	

	M1011-T13	M1011-T23	M1011-T15	M1011-T25
 Swiss single-phase 10A	■	■	■	■
 Swiss single-phase 16A		■		■
 Swiss three-phase 10A			■	■
 Swiss three-phase 16A				■

For further information on the types of socket used in each country, see pages 10 and 11 of this brochure.

Model selection

		RAL 7035
Italian dual standard		
 **M1170**		**2CSM210000R0701**
Italian P30 standard		
 **M1173**		**2CSM110000R0701**
 **M1173-L**	 Indicator light	**2CSM112000R0701**
Schuko German Standard		
 **M1175**		**2CSM210000R0721**
 **M1175-L**	 Indicator light	**2CSM212000R0721**
 **M1175-FL**	 Indicator light  6.3 A aM fuse	**2CSM214000R0721**
 **M1175-C**	 IP30 cover	**2CSM211000R0721**
French standard		
 **M1174**		**2CSM110000R0711**
BS (UK) standard		
 **M1363**		**2CSM259343R0721**
 **M1363-L**	 Indicator light	**2CSM258163R0721**
Swiss Standard		
 **M1011-T13**	**Single-phase 10 A Type 13**	2CSM220685R0721 M1011-T13
 **M1011-T23**	**Single-phase 16 A Type 23**	2CSM220695R0721 M1011-T23
 **M1011-T15**	**Three-phase 10 A Type 15**	2CSM220705R0721 M1011-T15
 **M1011-T25**	**Three-phase 16 A Type 25**	2CSM220715R0721 M1011-T25

Technical specifications and overall dimensions

Technical specifications

Rated voltage Un	**[V]**	250 V AC for all apart from M1011-T15 and M1011-T25 (400V AC)					
Rated current In	**[A]**	10 for M1011-T13, M1011-T15 13 for M1363 16 for M1011-T23, M1011-T25, M1170, M1173, M1174, M1175					
Rated frequency	**[Hz]**	50/60					
Power loss	**[W]**	0.6 for the single-phase versions					
Modules	**[no.]**	2.5 for M1170, M1173, M1174, M1175 3 for M1011, M1363					
Safety shutters		for all except M1011					
Terminal type		positive safety					
Cable section (ø min./max.)	**[mm²]**	2.5/16; except for M1011: above 25 mm² max, below 16 mm² max					
Tightening torque	**[Nm]**	1.2; except for M1011: 2.8 Nm					
Temperature: storage	**[°C]**	-40 - +70					
operating	**[°C]**	-25 - +35					
Protection degree		IP20 IP30 for versions with cover (when closed)					
		M1011	M1175	M1173	M1170	M1174	M1363
Reference standards		SEV 1011	DIN VDE 0620-1	IEC 23-50		NF C 61 314	BS1363
Approvals		SEV	VDE*, GOST	IMQ, GOST	GOST	LCIE, CEBEC, GOST	BSI

*** Available only on standard grey version M1175 and grey cover version M1175-C.**

Indicator light technical specifications

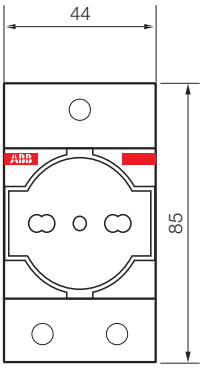
Type		fluorescent torpedo-shaped lamp
Function		voltage presence indicator (M1363, M1173, M1175
Light colour		green
Power consumption	**[W]**	0.25

Fuse technical specifications

Type		5 x 20 mm up to 6.3 A aM
Function		phase protection
Breaking capacity	[A]	1500 (H)
Reference standard		IEC EN 60127

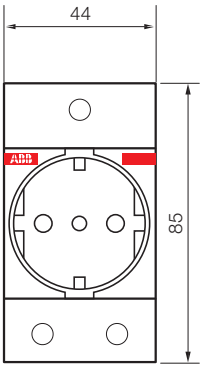
Overall dimensions

M1170



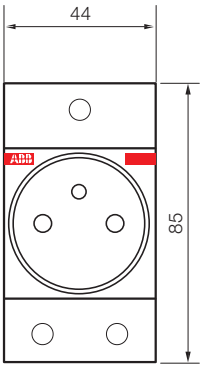
2,5 modules

M1173



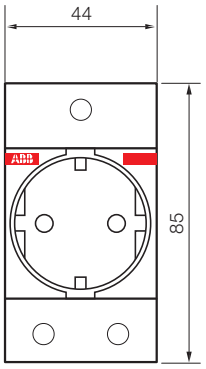
2,5 modules

M1174



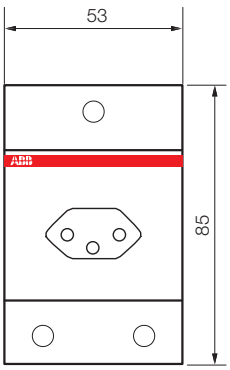
2,5 modules

M1175



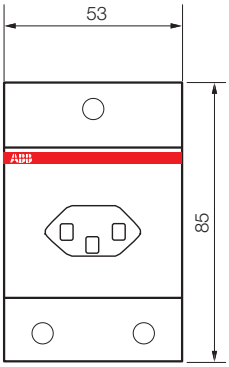
2,5 modules

M1011-T13



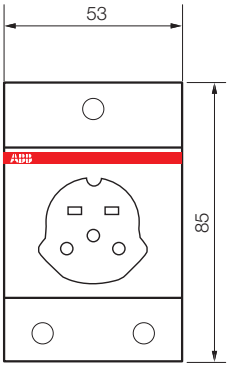
3 modules

M1011-T23



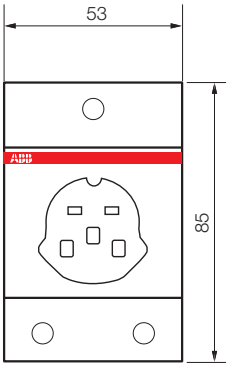
3 modules

M1011-T15



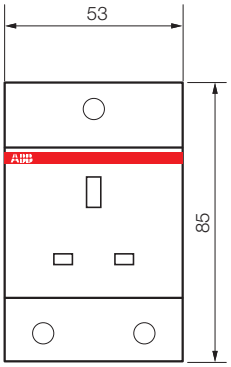
3 modules

M1011-T25



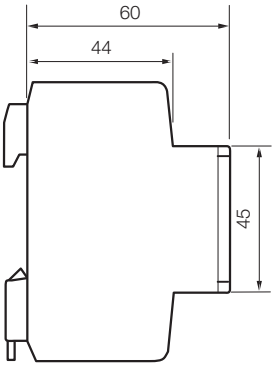
3 modules

M1363



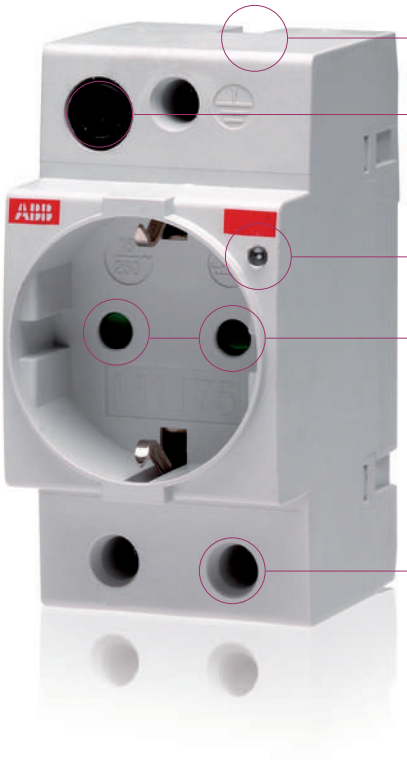
3 modules

All versions
Side view



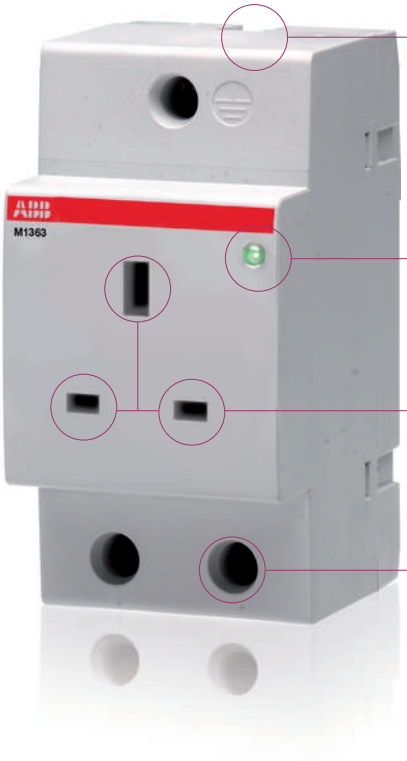
Benefits

M1170, M1173, M1174, M1175 - 250V, 16 A, 2.5 modules
Local quality approvals: IMQ, NF, CEBEC, VDE depending on the version.



- Large cage terminals to ease security wiring
- Integrated fuse: 5x20mm 6.3A aM fuse protecting phase
- Indicator light: voltage presence indication
- Safety shutters: socket holes protected
- Screws: Pozidriv® screws, tightening torque 1.2 N

M1363 - 250 V, 13 A, 3 modules
Local quality approval: BSI.



- Large cage terminals to ease security wiring
- Indicator light: voltage presence indication
- Safety shutters: socket holes protected
- Screws: Pozidriv® screws, tightening torque 1.2 N

M1011 - 250 V and 400 V, 10 A and 16 A, 3 modules
Local quality approval: SEV.









Large cage terminals to ease security wiring

IP 20 case

Installation on DIN rail or Smissline Classic rail

Available in 4 versions (10 and 16 A, single-phase and three-phase)

Compact: only 3 modules

Cable or busbar connection

Country selection table

This table gives an indication of the voltage and frequency used in each country and the ABB modular sockets which can be installed. Installation rules and standards may change in each country: it is therefore important to check local regulations before installing the product.

Country	Volt.		Freq.		Modular sockets					
	110-130 V	220-250 V	50 Hz	60 Hz	M1011	M1363	M1170	M1173	M1174	M1175
Afghanistan		■	■				■	■	■	■
Albania		■	■				■	■	■	■
Algeria	■	■	■				■	■	■	■
Andorra		■	■				■	■	■	■
Angola		■	■				■	■	■	■
Dutch Antilles	■	■	■	■			■	■	■	■
Saudi Arabia	■	■		■		■	■	■	■	■
Argentina		■	■				■	■	■	■
Armenia		■	■				■	■	■	■
Aruba	■	■		■			■	■	■	■
Australia		■	■							
Austria		■	■				■	■	■	■
Azerbaijan		■	■				■	■	■	■
Bahrain		■	■			■				
Bangladesh		■	■				■	■	■	■
Belgium		■	■						■	
Belize	■	■		■		■				
Benin		■	■						■	
Bhutan		■	■			■	■	■	■	■
Belarus		■	■				■	■	■	■
Bolivia	■	■	■				■	■	■	■
Bosnia & Herzegovina		■	■				■	■	■	■
Botswana		■	■			■				
Brazil	■	■		■			■	■	■	■
Brunei		■	■			■				
Bulgaria		■	■				■	■	■	■
Burkina Faso		■	■				■	■	■	■
Burundi		■	■				■	■	■	■
Cambodia		■	■			■	■	■	■	■
Cameroon		■	■				■	■	■	■
Cape Verde		■	■				■	■	■	■
Chad		■	■				■	■	■	■
Chile		■	■				■	■	■	■
Cyprus		■	■			■	■	■	■	■
Comoros		■	■				■	■	■	■
Congo, Dem. Rep. (Zaire)		■	■				■	■	■	■
Congo, People's Rep. of		■	■				■	■	■	■
Ivory Coast		■	■				■	■	■	■
North Korea		■		■			■	■	■	■
South Korea	■	■		■			■	■	■	■
Croatia		■	■				■	■	■	■
Cuba	■	■		■			■	■	■	■
Denmark		■	■				■	■	■	■
Djibouti		■	■				■	■	■	■

Country	Volt.		Freq.		Modular sockets					
	110-130 V	220-250 V	50 Hz	60 Hz	M1011	M1363	M1170	M1173	M1174	M1175
Dominica		■	■			■				
Egypt		■	■				■	■	■	■
UAE		■	■			■				
Eritrea		■	■				■	■	■	■
Estonia		■	■				■	■	■	■
Ethiopia		■	■		■		■	■	■	■
Fiji		■	■							
Philippines		■		■			■	■	■	■
Finland		■	■				■	■	■	■
France		■	■						■	
Gabon		■	■				■	■	■	■
Gambia		■	■			■				
Georgia		■	■				■	■	■	■
Germany		■	■				■	■	■	■
Ghana		■	■			■				
Gibraltar		■	■			■	■	■	■	■
Jordan		■	■		■	■	■	■	■	■
Greece		■	■				■	■	■	■
Grenada		■	■			■				
Greenland		■	■				■	■	■	■
Guadalupe		■	■				■	■	■	■
Guatemala	■	■		■		■				
Guinea		■	■				■	■	■	■
Guinea-Bissau		■	■				■	■	■	■
Equatorial Guinea		■	■				■	■	■	■
Guyana		■		■		■				
French Guyana	■	■	■				■	■	■	■
Hong Kong		■	■			■				
India		■	■				■	■	■	■
Indonesia	■	■	■			■	■	■	■	■
Iran		■	■				■	■	■	■
Iraq		■	■			■	■	■	■	■
Ireland		■	■			■				
Iceland		■	■				■	■	■	■
Isle of Man		■	■			■	■	■	■	■
Balearic Islands		■	■				■	■	■	■
Canary Islands		■	■				■	■	■	■
Cook Islands		■	■							
Channel Islands		■	■			■				
Falkland Islands		■	■			■				
Faroe Islands		■	■				■	■	■	■
Israel		■	■				■	■	■	■
Italy		■	■				■	■	■	■
Kazakhstan		■	■				■	■	■	■

Country	Volt.		Freq.		Modular sockets					
	110-130 V	220-250 V	50 Hz	60 Hz	M1011	M1363	M1170	M1173	M1174	M1175
Kenya		■	■			■				
Kyrgyzstan		■	■				■	■	■	■
Kiribati		■	■							
Kuwait		■	■			■	■	■	■	■
Laos		■	■				■	■	■	■
Azores		■	■				■	■	■	■
Latvia		■	■				■	■	■	■
Lebanon	■	■	■			■	■	■	■	■
Lithuania		■	■				■	■	■	■
Luxembourg		■	■				■	■	■	■
Macau		■	■			■				
Macedonia		■	■				■	■	■	■
Madagascar	■	■	■				■	■	■	■
Madeira		■	■				■	■	■	■
Malawi		■	■			■				
Maldives		■	■		■	■	■	■		
Malaysia		■	■			■				
Mali		■	■				■	■	■	■
Malta		■	■			■				
Morocco	■	■	■				■	■	■	■
Martinique		■	■				■	■	■	■
Mauritania		■	■				■	■	■	■
Mauritius		■	■			■	■	■	■	■
Moldova		■	■				■	■	■	■
Monaco		■	■				■	■	■	■
Mongolia		■	■				■	■	■	■
Montenegro		■	■				■	■	■	■
Mozambique		■	■				■	■	■	■
Myanmar (ex Burma)		■	■				■	■	■	■
Nauru		■	■							
Nepal		■	■				■	■	■	■
Niger		■	■				■	■	■	■
Nigeria		■	■			■				
Norway		■	■				■	■	■	■
New Caledonia		■	■				■	■	■	■
New Zealand		■	■							
Netherlands		■	■				■	■	■	■
Oman		■	■			■				
Pakistan		■	■				■	■	■	■
Papua New Guinea		■	■							
Paraguay		■	■				■	■	■	■
Peru		■	■	■			■	■	■	■
Poland		■	■				■	■	■	■
Portugal		■	■				■	■	■	■
Qatar		■	■			■				
United Kingdom		■	■			■				
Czech Republic		■	■						■	
Central African Republic		■	■				■	■	■	■

Country	Volt.		Freq.		Modular sockets					
	110-130 V	220-250 V	50 Hz	60 Hz	M1011	M1363	M1170	M1173	M1174	M1175
Réunion Island		■	■						■	
Romania		■	■				■	■	■	■
Rwanda		■	■		■		■	■	■	■
Russia		■	■				■	■	■	■
Samoa		■	■							
American Samoa	■	■		■			■	■	■	■
San Marino		■	■				■	■	■	■
Senegal		■	■				■	■	■	■
Serbia		■	■				■	■	■	■
Seychelles		■	■			■				
Sierra Leone		■	■			■				
Singapore		■	■			■				
Syria		■	■				■	■	■	■
Slovakia		■	■						■	
Slovenia		■	■				■	■	■	■
Somalia	■	■	■				■	■	■	■
Spain		■	■				■	■	■	■
Sri Lanka		■	■			■				
St. Kitts and Nevis		■		■		■				
St. Lucia		■	■			■				
St. Vincent		■	■			■	■	■	■	■
Sudan		■	■				■	■	■	■
Suriname	■	■		■			■	■	■	■
Sweden		■	■				■	■	■	■
Switzerland		■	■		■		■	■	■	■
Tahiti	■	■		■			■	■	■	■
Tajikistan		■	■				■	■	■	■
Tanzania		■	■			■				
Thailand		■	■				■	■	■	■
East Timor		■	■				■	■	■	■
Togo		■	■				■	■	■	■
Tonga		■	■							
Tunisia		■	■				■	■	■	■
Turkey		■	■				■	■	■	■
Turkmenistan		■	■				■	■	■	■
Ukraine		■	■				■	■	■	■
Uganda		■	■			■				
Hungary		■	■				■	■	■	■
Uruguay		■	■				■	■	■	■
Uzbekistan		■	■				■	■	■	■
Vietnam	■	■	■			■	■	■	■	■
Yemen, Rep. of		■	■			■				
Zambia		■	■			■	■	■	■	■
Zimbabwe		■	■			■				

Main countries are highlighted.

Application examples

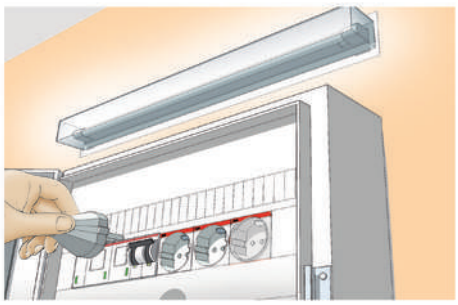
Use of sockets with indicator light

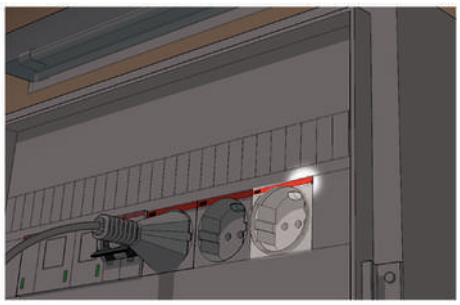
Operating principle

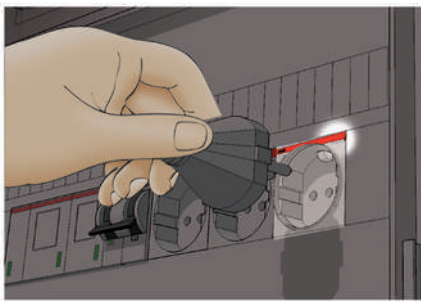
The presence of the indicator light on the modular sockets is helpful in order to indicate whether supply voltage is present, making it clear if a socket is powered or not.

Installation example

As shown in the diagrams, non modular devices can be plugged directly into the electrical switchboard using a modular socket.
If the modular socket that is being used is equipped with an indicator light, it provides a clear indication that the upstream power supply is present.







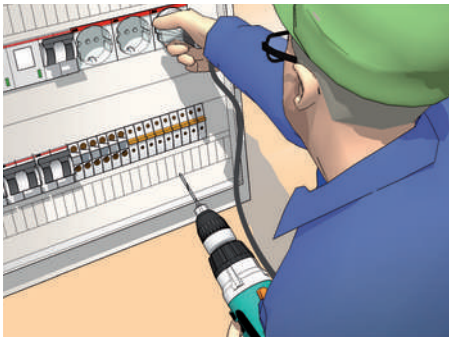
Use of fused sockets

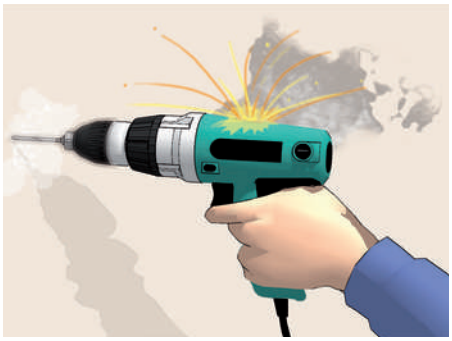
Operating principle

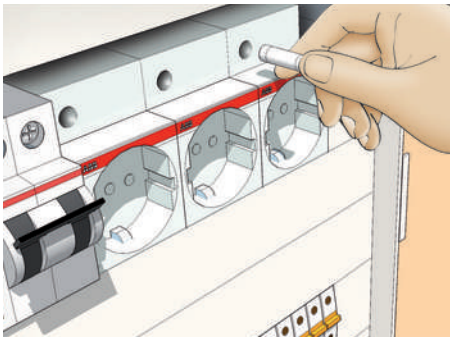
Fused modular sockets are used when continuity of service is requested. With an integrated fuse protecting the phase, they avoid the related breaker to trip if a fault occurs in the connected load.

Installation example

As shown in the diagrams, non modular devices can be plugged directly into the electrical switchboard using a modular socket.
If the connected device is not working properly, there is the risk that the whole electrical system will be taken offline by the breaker tripping out.
The fuse integrated in the socket can protect against short circuits and overloads before this happens, ensuring quality of service.







Frequently asked questions

Why do modular sockets follow local rules?

Sockets are “local” products, which must adhere to the standards of the place where they are used. Over time, a large number of standards was created, and this diversity has remained almost unchanged to this day. An attempt to unify European sockets was made in 1986 (IEC 60906-1), which ended without changes in use being made in Europe but was partially adopted in Brazil and South Africa.

How many socket standards are there? Is it possible that a country uses more than one standard? In this case, how can I choose the correct solution?

There are 13 socket standards, and in many countries more than one standard is in use. Importation of equipment, such as household electrical appliances, has often made it necessary to install foreign standard sockets able to accommodate the plugs this equipment is fitted with.
You can refer to the table in this brochure which gives all ABB solutions for each country in order to ensure the correct use. To guarantee maximum safety, ask to your ABB contact.

Why do modular sockets not have the CE mark?

ABB modular sockets are not “CE” marked as this is not required by European Directive 2005/95/EC, which indicates (Annex II) that products identified as “Domestic plugs and sockets” are out of the scope of the european directive.
Modular sockets are included into this category and cannot, therefore, receive the “CE” mark.

Why does the M1170 modular socket not carry any quality mark?

This “dual” socket accommodates different types of plugs: Europlug, Italian 10A/16A and the German Schuko. The shutters for the pins of these plugs on the M1170 modular socket are larger than the other socket models (M1173 and M1175, both with quality markings) in order to accommodate each type of plug. The product's geometry therefore makes conformity with the different standards impossible, and as a consequence it is not certified by the standards.

Why do the names of the connections change from socket to socket?

Product marking indications are defined by the applicable product standards. In table 1 you will find a summary of the markings for each model.

Why do the rated current values change for each socket model?

The rated currents of the sockets are defined by local standards. In general, the current values fall between 10 A and 20 A. It is always advisable to connect equipment with a high power consumption using sockets rated at a minimum of 10 A.
Table 2 lists the voltage, current and maximum power supply for each single-phase socket.

What are safety shutters and what kind of protection do they offer?

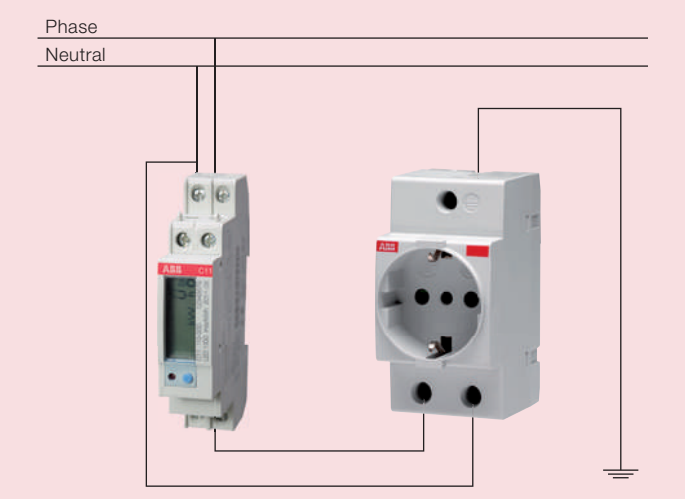
These are insulating components located in front of the holes for the plug pins (and therefore the socket's contacts); they create a barrier between the accessible part of the socket and the live parts. They create an obstacle to inserting objects which could create a danger for untrained users: metal objects, wires, screwdrivers etc.
Safety shutters are designed to open only when a plug is inserted, therefore offering additional safety.

Modular socket	Phase connection	Neutral connection	Earth connection
M1170, M1173, M1174, M1175 unfused	These sockets are not polarised: Phase and neutral can be inverted, they are not marked on the product.		Earth symbol
M1175 fused	No marking	“N” marking	Earth symbol
M1363	“L”, for live	“N”, for Neutral	Earth symbol
M1011	Single-phase versions: “L” Three-phase versions: “L1, L2, L3”	“N”, for Neutral	Earth symbol

Frequently asked questions

How can I measure the energy consumed at a modular socket?

C11 energy meter is ideal to measure the energy consumed at a modular socket.



Can I connect modular sockets in any direction in a switchboard (vertical, horizontal etc.)?

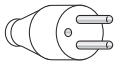
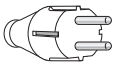
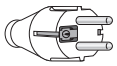
Modular sockets can be installed in any position in an electrical switchboard to meet the needs of customers around the world.

When connecting a drill to an M1175-FL modular socket, the integrated protection fuse blew. Can I replace it with a 16 A fuse to avoid this problem?

The fuse in the M1175-FL must be replaced with one of the same specification; you should, in any case, check that the device is not faulty before reconnecting it.
The 6.3 A rating allows it to blow selectively when a fault occurs, before the line protection trips out. It is the right compromise between power output and selective protection.
In this case, the integrated protection in the socket allowed continuity of service to be maintained on the other lines!

There are two types of Schuko plug which differ in the earth contact; this can be a protruding pin in the socket or side connections. Is there a socket suitable for both plug models?
The French plug standard provides for the earth connection with a protruding pin on the socket, while the German standard specifies side earth connections.
The minimal difference between the two standards is an opportunity for standardisation, and French-German standard plugs were created with both types of earth connection. In general, new equipment on sale in France is supplied with the French-German Schuko plugs, however it is necessary to provide for the connection of other socket models. If doubts should arise on the type of plug to connect, it will be necessary to install both socket models.

The following table indicates the different cases:

	French Schuko socket M1174	**German Schuko socket M1175**
French Schuko plug 	Ok	No, or else without earth connection
German Schuko plug 	No	Ok
French-German Schuko plug 	Ok	Ok

Socket model	Single-phase rated voltage [V]	Rated current [I]	Max power output [kW]
M1175-FL	250	6.3	1.57
M1011-T13	250	10	2.5
M1363	250	13	3.25
M1170, M1173, M1174, M1175 (unfused), M1011-T23	250	16	4

Do your customers a favor!



By installing an ABB modular socket in every electrical switchboard, you will facilitate maintenance operations, supplying a complete and customised switchboard even for your customers on the other side of the world.

You just need one of these to make sure you are never cut off at the switchboard again!

Contact us

ABB S.p.A.
Electrification Products Division
Viale dell'Industria, 18
20010 Vittuone (MI)
Italy

www.abb.com/lowvoltage
www.abb.com

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