

## WORLD MAIN VOLTAGE/FREQUENCY STANDARDS

Source - <http://www.interpower.com/guide/guide.htm>

Country	Voltage	Frequency	Receptacle
Afghanistan	220	50	G
Algeria	127/220	50	B, F
American Samoa	120/240	60	C, K, N
Angola	220	50	A, B
Anguilla (U.K.)	240	50	D
Antigua	230	60	D, K, N
Argentina	220	50	C
Aruba	115/127	60	A, B, K, N
Australia	240	50	C, P
Austria	220-230	50	A, B
Azores (Portugal)	220	50	A, B
Bahamas	120	60	K, N
Bahrain	220	50	D, G
Bangladesh	220	50	G
Barbados	115	50	K, N
Belgium	220-230	50	B, F
Belize (Br. Honduras)	110	60	K, N
Benin	220	50	G
Bermuda	120	60	K, N
Bolivia	110-115/220	50	A, B
Bosnia-Herzegovina	220	50	A, B
Botswana	220	50	D, G
Brazil	110-220	60	B, K, N
Bulgaria	220	50	A, B
Burkina Faso	220	50	B
Burma (now Myanmar)	230	50	D, G
Burundi	220	50	A, B
Cambodia	120/220	50	B
Cameroon	220-230	60	B, F
Canada	120	60	K, N
Canary Islands (Spain)	220	50	B, F
Cape Verde, Rep. of	220	50	A, B
Cayman Islands	120	60	K, N
Central African Rep.	220	50	B
Chad	220	50	A, F
Channel Islands	240	50	B, D
Chile	220	50	B, J
China People's Rep. of	220	50	B, C

<b>Country</b>	<b>Voltage</b>	<b>Frequency</b>	<b>Receptacle</b>
Christmas Is. (Austral.)	240	50	C
Cocos Is (Austral.)	240	50	C
Colombia	110-220	60	N
Congo, Rep. of	220	50	B
Cook Is (New Zealand)	240	50	C
Costa Rica	120	60	K, N
Cuba	---	---	K, N
Curacao Is.	110/220	60	A, K
Cyprus	240	50	D
Czech, Rep of	220	50	B, F
Denmark	220-230	50	B, E
Djibouti, Rep. of	220	50	B, F
Dominica	230	50	D
Dominican Rep.	110	60	K, N
Ecuador	220	50	K, N
Egypt	115	60	B
El Salvador	240	50	K, N
England	120	60	D, G
Equatorial Guinea	220	50	B
Estonia	220	50	A, B
Ethiopia	220	50	A, B, J
Fiji	240	50	C
Finland	220-230	50	A, B
France	220-230	50	B, F
French Guiana	220	50	B, F
Gabon	220	50	B, F
Gambia	220	50	D
Germany	220-230	50	A, B
Ghana	220	50	B, D, G
Gibraltar	240	50	D
Greece	220-230	50	A, B
Greenland (Den.)	220	50	B, E
Grenada	230	50	D, G
Guadeloupe	220	50	B, F
Guam	110-120	60	K, N
Guatemala	120	60	K, N
Guinea	220	50	B, F
Guinea-Bissau	220	50	A, B
Guyana	110	50-60	D, G

<b>Country</b>	<b>Voltage</b>	<b>Frequency</b>	<b>Receptacle</b>
Haiti	110-120	50-60	K, N
Honduras	110	60	K, N
Hong Kong	200	50	D, G
Hungary	220	50	A
Iceland	220	50	A, B
India	220-250	50	G
Indonesia	220	50	A, B
Iran	220	50	A, B
Iraq	220	50	D, G
Ireland, Rep. of (S.)	220	50	D
Isle of Man	240	50	D
Israel	230	50	B, H
Italy	220-230	50	B, J
Ivory coast	220	50	B
Jamaica	110	50	K, N
Japan	100	50 & 60	J, M
Jordan	220	50	A, B, D
Kenya	240	50	D, G
Korea, South	220	50 & 60	A, K, N
Kuwait	240	50	D, G
Laos	220	50	B, K, N
Latvia	220	50	A, B
Lebanon	110-220	50	B, D, G
Lesotho	240	50	G
Liberia	120	60	N
Libya	127-230	50	G, J
Liechtenstein	220	50	L
Lithuania	220	50	A, B
Luxembourg	220-230	50	A, B
Macao	220	50	B, G
Madagascar	220	50	B, F
Madeira (Portugal)	220	50	B, G
Majorca	220	50	A, B
Malawi	230	50	D
Malaysia	240	50	D
Maldives	230	50	G
Mali, Rep. of	220	50	B, F

<b>Country</b>	<b>Voltage</b>	<b>Frequency</b>	<b>Receptacle</b>
Malta	240	50	D
Martinique	220	50	B, F
Mauritania	220	50	B
Mauritius	230	50	D, G
Mexico	127	60	K, N
Moldova	---	---	O
Monaco	220	50	A, B, F
Mongolia	220	50	B
Montserrat	230	60	D, K, N
Morocco	220	50	A, B, F
Mozambique	220	50	A, B
Namibia (W.S. Africa)	220-250	50	G
Nepal	220	50	G
Neth. Antilles	120-127/220	50/60	A, B, K
Netherlands	220-230	50	A, B
New Caledonia	220	50	B, F
New Zealand	230	50	C
Nicaragua	120	60	K, N
Niger	220	50	B, F
Nigeria	230	50	D, G
Northern Ireland	220	50	D
No. Mariana Is. (U.S.)	115	60	K, N
Norfolk Is. (Australia)	240	50	C
Norway	220-230	50	A, B
Okinawa	110-120	60	N
Oman	240	50	D, G
Pakistan	230	50	G
Panama	110-120	60	K, N
Papua New Guinea	240	50	C, P
Paraguay	240	50	B
Peru	110/220	50/60	B
Philippines	115	60	K, N
Pitcairn Is. (U.K.)	240	50	G
Poland	220	50	A, B, F
Portugal	220-230	50	A, B, G
Puerto Rico	120	60	K, N
Qatar	240	50	D, G
Romania	220	50	A, B

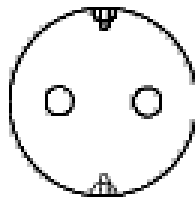
<b>Country</b>	<b>Voltage</b>	<b>Frequency</b>	<b>Receptacle</b>
Russia	220	50	O
Rwanda	220	50	B
Saudi Arabia	127/220	50/60	A, F, K
Scotland	220	50	D
Senegal	220	50	F
Seychelles	240	50	D, G
Sierra Leone	230	50	D, G
Singapore	230	50	D, G
Slovakia	220	50	B, F
Somalia	110/220	50	B, F
South Africa	220-250	50	G
Spain	220-230	50	B, F
Sri Lanka	230	50	G
St. Kitts & Nevis	230	60	D, G
St. Lucia	240	50	D
St. Pierre & Miquelon (Fr.)	115	60	K, N
St. Vincent	230	50	D
Sudan	240	50	B
Surinam	115	60	A, B
Svalbard (Norway)	115	60	A, B
Swaziland	230	50	G
Sweden	220-230	50	A, B
Switzerland	220-230	50	L
Syria	220	50	B
Tahiti	220	50	F
Taiwan	110	60	K, N
Tanzania	230	50	D, G
Thailand	220-230	50	B, K, N
Togo	220	50	B, F
Tonga	115	60	C, G
Trinidad & Tobago	115/230	60	D, G, K
Tunisia	220	50	B
Turkey	220	50	A, B
Uganda	240	50	G
Ukraine	---	---	O
United Arab Emir.	220/230	50	D, G
United Kingdom & Ire.	240	50	D, G
United States	120	60	K
Uruguay	220	50	C

Country	Voltage	Frequency	Receptacle
Venezuela	120	60	K, N
Vietnam	120/220	50	B, K, F, N
Virgin Islands	120	60	K, N
Wales	220	50	D
Western Samoa	230	50	C
Yemen	220	50	B, D, G
Yugoslavia (former)	220	50	A, B
Zaire, Rep. of	220	50	F
Zambia	220	50	D
Zimbabwe	220	50	D, G

The information provided for developing countries is not precise. The data provided for single phase voltages are nominal and subject to a standard tolerance of 10%. In some areas tolerances may be much greater. Variations from nominal frequencies may be considerably greater in developing countries.

The information here was compiled from several sources, including: "Electric Current Abroad," (now out of print). Information is current as of the time of publication. Subject to change without notification.

**CONNECTOR A**  
Continental Europe  
CEE 7

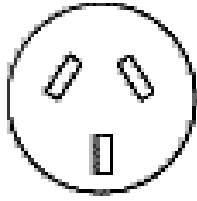


**CONNECTOR B**  
Europlug  
CEE 7/16



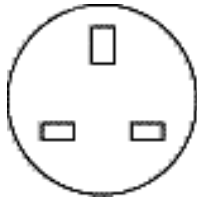
CONNECTOR C

Australia



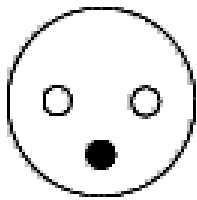
CONNECTOR D

United Kingdom



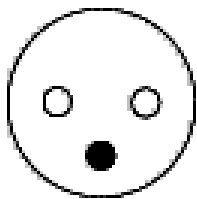
CONNECTOR E

Denmark



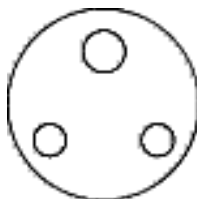
CONNECTOR F

France/Belgium



CONNECTOR G

India (Old British)



CONNECTOR H

Israel



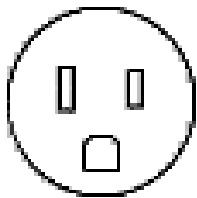
CONNECTOR I

Italy



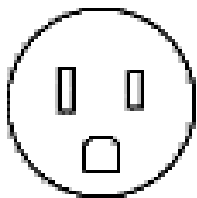
CONNECTOR J

Japan



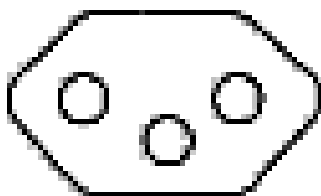
CONNECTOR K

North America (NEMA 5-15)



CONNECTOR L

Switzerland

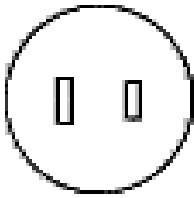




### CONNECTOR M

Japan (Ungrounded)

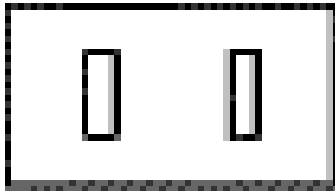
(Polarized)



### CONNECTOR N

Flat Blade (Ungrounded)

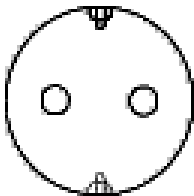
(Unpolarized)



### CONNECTOR O

IEC 906-1: "IEC System"

For plugs and sockets.



### CONNECTOR P

Australia (Ungrounded)

