

WORLD MAIN VOLTAGE/FREQUENCY STANDARDS

For further information, I suggest going to <http://users.pandora.be/worldstandards/electricity.htm#plugs> |

The following was compiled from various sources

Country	Voltage	Frequency	Receptacle
Afghanistan	220	50	G
Albania	220V*	50 Hz	Voltage variations common
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 Ponta Delgada 110V; to be converted to 220V
Bahamas	120	60	K, N
Bahrain	220	50	D, G Awali 110V, 60 Hz
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 La Paz & Viacha 115V
Bosnia-Herzegovina	220	50	A, B
Botswana	220	50	D, G
Brazil	110-220	60	B, K, N 110V found in states of Rio de Janeiro, Sao Paulo and Minas Gerais (though 220V may be found in some hotels). Other areas are 220V only, with the exception of Fortaleza (240V). Outlets are often a combination of type
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

Country	Voltage	Frequency	Receptacle
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 Guernsey 230V
Chile	220	50	B, J
China People's Rep. of	220	50	B, C
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	110-127	60	K, N
Egypt	115	60	B
El Salvador	115	60	K, N
England	230	50	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

Country	Voltage	Frequency	Receptacle
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 Inside the capital city of Georgetown, both 120V and 240V at either 50 or 60Hz are found, depending on the part of the city (50Hz most common). Actual voltage may vary from area to area.
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 DC power in use in some areas
Indonesia	220	50	A, B Conversion to 220V is in progress and has been completed in principal cities
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 Eastern Japan 50 Hz (Tokyo, Kawasaki, Sapporo, Yokohama, and Sendai); Western Japan 60 Hz (Osaka, Kyoto, Nagoya, Hiroshima)
Jordan	220	50	A, B, D
Kenya	240	50	D, G
Korea, South	220	50 & 60	A, K, N

Country	Voltage	Frequency	Receptacle
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 Barce, Benghazi, Derna, Sebha & Tobruk 230V
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 Penang 230V
Maldives	230	50	G
Mali, Rep. of	220	50	B, F
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
Montseurrat	230	60	D, K, N
Morocco	220	50	A, B, F
Mozambique	220	50	A, B
Namibia (W.S. Africa)	220-250	50	G Keetmanshoop 230V
Nepal	220	50	G
Neth. Antilles	120-127/220	50/60	A, B, K St. Martin 120V 60 Hz
Netherlands	220-230	50	A, B
New Caledonia	220	50	B, F
New Zealand	230	50	C

Country	Voltage	Frequency	Receptacle
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 Voltage variations common
Pakistan	230	50	G
Panama	110-120	60	K, N Panama City 120V
Papua New Guinea	240	50	C, P
Paraguay	240	50	B
Peru	110/220	50/60	B Talara 110/220V; Arequipa 50 Hz
Philippines	115	60	K, N *Manila 115/230V
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
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 Berbera 230V; Merca 110/220V
South Africa	220-250	50	G Grahamstad & Port Elizabeth 250V;

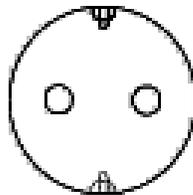
Country	Voltage	Frequency	Receptacle
			also found in King Williams
Spain	220-230	50	B, F
Sri Lanka	230	50	G
St. Kitts & Nevis	230	60	D, G
St. Lucia	240	50	D
St. Pierre & Miquelon (Fr.)	115	60	K, N
St. Vincent	230	50	D
Sudan	240	50	B
Surinam	115	60	A, B
Svalbard (Norway)	115	60	A, B
Swaziland	230	50	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 *Lome 127V
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 Voltage variances are common
Ukraine	230	50	O
United Arab Emir.	220/230	50	D, G Ajman & Sharjah 230V
United Kingdom & Ire.	240	50	D, G
United States	120	60	K
Uruguay	220	50	C
Venezuela	120	60	K, N Valencia and Maracay
Vietnam	120/220	50	B, K, F, N To be standardized at 220V
Virgin Islands	120	60	K, N
Wales	220	50	D
Western Samoa	230	50	C

Country	Voltage	Frequency	Receptacle
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

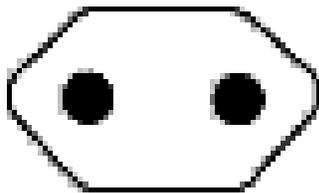
The information provided for developing countries is not precise. The data provided for single phase voltages are nominal and subject to a standard tolerance of 10%. In some areas tolerances may be much greater. Variations from nominal frequencies may be considerably greater in developing countries.

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



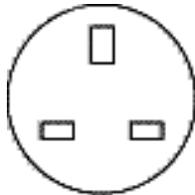
CONNECTOR C

Australia



CONNECTOR D

United Kingdom



CONNECTOR E

Denmark



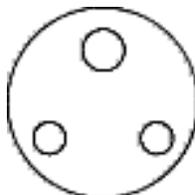
CONNECTOR F

France/Belgium



CONNECTOR G

India (Old British)



CONNECTOR H

Israel



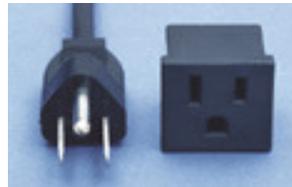
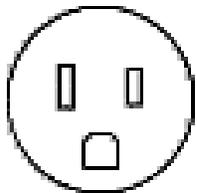
CONNECTOR I

Italy



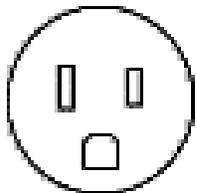
CONNECTOR J

Japan



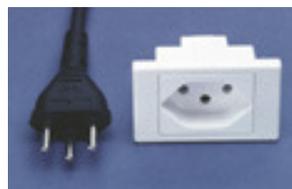
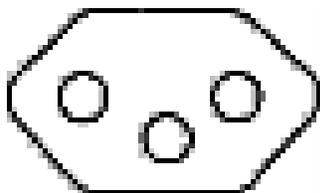
CONNECTOR K

North America (NEMA 5-15)



CONNECTOR L

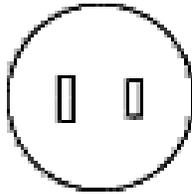
Switzerland



CONNECTOR M

Japan (Ungrounded)

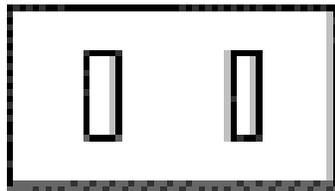
(Polarized)



CONNECTOR N

Flat Blade (Ungrounded)

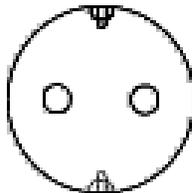
(Unpolarized)



CONNECTOR O

IEC 906-1: "IEC System"

For plugs and sockets.



CONNECTOR P

Australia (Ungrounded)

