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COUNTRY	THREE-PHASE VOLTAGE	FREQUENCY	NUMBER OF WIRES (not including the ground wire)	Efficiency requirements
Algeria	400 V	50 Hz	4	
American Samoa	208 V	60 Hz	3, 4	
Andorra	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Angola	380 V	50 Hz	4	
Antigua	400 V	60 Hz	3, 4	
Argentina	380 V	50 Hz	3, 4	
Armenia	380 V	50 Hz	4	
Aruba	220 V	60 Hz	3, 4	
Australia	415 V	50 Hz	3, 4	IE2 mandatory April 2006 and IE expected for near future (2013)
Austria	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Azerbaijan	380 V	50 Hz	4	
Azores	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Bahamas	208 V	60 Hz	3, 4	
Bahrain	400 V	50 Hz	3, 4	
Balearic Islands	400 V	50 Hz	3, 4	
Bangladesh	380 V	50 Hz	3, 4	
Barbados	200 V	50 Hz	3, 4	
Belarus	380 V	50 Hz	4	
Belgium	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Belize	190 V / 380 V	60 Hz	3, 4	
Benin	380 V	50 Hz	4	
Bermuda	208 V	60 Hz	3, 4	
Bhutan	400 V	50 Hz	4	
Bolivia	400 V	50 Hz	4	
Bosnia & Herzegovina	400 V	50 Hz	4	
Botswana	400 V	50 Hz	4	
Brazil	220 V / 380 V / 440 V*	60 Hz	3, 4	IE2 mandatory December 8, 2009

Brunei	415 V	50 Hz	4	
Bulgaria	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Burkina Faso	380 V	50 Hz	4	
Burundi	380 V	50 Hz	4	
Cambodia	400 V	50 Hz	4	
Cameroon	380 V	50 Hz	4	
Canada	208 V / 240 V / 600 V	60 Hz	3, 4	NEMA Premium (IE3) mandatory January 1,2011
Canary Islands	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011 and IE3 January 01, 2015
Cape Verde	400 V	50 Hz	3, 4	
Cayman Islands	208 V	60 Hz	3	
Central African Republic	380 V	50 Hz	4	
Chad	380 V	50 Hz	4	
Channel Islands (Guernsey & Jersey)	400 V	50 Hz	4	
Chile	380 V	50 Hz	3, 4	IE2 mandatory January 01, 2011
China, People's Republic of	380 V	50 Hz	3, 4	IE2 mandatory July 01,2011 and IE3 July 01, 2016
Colombia	440 V	60 Hz	3, 4	
Comoros	380 V	50 Hz	4	
Congo, People's Rep. of	400 V	50 Hz	3, 4	
Congo, Dem. Rep. of(formerly Zaire)	380 V	50 Hz	3, 4	
Cook Islands	415 V	50 Hz	3, 4	
Costa Rica	240 V	60 Hz	3, 4	
Côte d'Ivoire (Ivory Coast)	380 V	50 Hz	3, 4	
Croatia	400 V	50 Hz	4	
Cuba	190 V	60 Hz	3	
Cyprus	400 V	50 Hz	4	
Czech Republic	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Denmark	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Djibouti	380 V	50 Hz	4	
Dominica	400 V	50 Hz	4	
Dominican Republic	120/208 V / 277/480 V	60 Hz	3, 4	
Ecuador	190 V	60 Hz	3, 4	
Egypt	380 V	50 Hz	3, 4	
El Salvador	200 V	60 Hz	3	
Equatorial Guinea	[unavailable]	[unavailable]	[unavailable]	
Eritrea	400 V	50 Hz	4	

Estonia	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Ethiopia	380 V	50 Hz	4	
Faeroe Islands	400 V	50 Hz	3, 4	
Falkland Islands	415 V	50 Hz	4	
Fiji	415 V	50 Hz	3, 4	
Finland	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
France	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
French Guyana	380 V	50 Hz	3, 4	
Gabon	380 V	50 Hz	4	
Gambia	400 V	50 Hz	4	
Gaza	400 V	50 Hz	4	
Georgia	380 V	50 Hz	4	
Germany	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Ghana	400 V	50 Hz	3, 4	
Gibraltar	400 V	50 Hz	4	
Greece	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Greenland	400 V	50 Hz	3, 4	
Grenada (Windward Islands)	400 V	50 Hz	4	
Guadeloupe	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Guam	190 V	60 Hz	3, 4	
Guatemala	208 V	60 Hz	3, 4	
Guinea	380 V	50 Hz	3, 4	
Guinea-Bissau	380 V	50 Hz	3, 4	
Guyana	190 V	60 Hz	3, 4	
Haiti	190 V	60 Hz	3, 4	
Honduras	190 V	60 Hz	3	
Hong Kong	380 V	50 Hz	3, 4	IE2 introduce since end of 2009 and IE3 mandatory January 01, 2015
Hungary	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Iceland	400 V	50 Hz	3, 4	
India	400 V	50 Hz	4	IE2 expected 2013
Indonesia	400 V	50 Hz	4	
Iran	400 V	50 Hz	3, 4	
Iraq	400 V	50 Hz	4	
Ireland (Eire)	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Isle of Man	400 V	50 Hz	4	

Israel	400 V	50 Hz	4	IE2 mandatory February 01, 2008
Italy	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Jamaica	190 V	50 Hz	3, 4	
Japan	200 V	50 Hz / 60 Hz**	3	IE2 expected for future
Jordan	400 V	50 Hz	3, 4	
Kenya	415 V	50 Hz	4	
Kazakhstan	380 V	50 Hz	3, 4	
Kiribati	[unavailable]	[unavailable]	[unavailable]	
Korea, South	380 V	60 Hz	4	IE2 mandatory January 01, 2010
Kuwait	415 V	50 Hz	4	
Kyrgyzstan	380 V	50 Hz	3, 4	
Laos	400 V	50 Hz	4	
Latvia	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Lebanon	400 V	50 Hz	4	
Lesotho	380 V	50 Hz	4	
Liberia	208 V	60 Hz	3, 4	
Libya	220 V / 400 V	50 Hz	4	
Liechtenstein	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Lithuania	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Luxembourg	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Macau	380 V	50 Hz	3	
Macedonia	400 V	50 Hz	4	
Madagascar	220 V / 380 V	50 Hz	3, 4	
Madeira	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Malawi	400 V	50 Hz	3, 4	
Malaysia	415 V	50 Hz	4	
Maldives	400 V	50 Hz	4	
Mali	380 V	50 Hz	3, 4	
Malta	400 V	50 Hz	4	
Martinique	380 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Mauritania	220 V	50 Hz	3	
Mauritius	400 V	50 Hz	4	
Mexico	220 V / 480 V	60 Hz	3, 4	IE3 expected for near future
Moldova	380 V	50 Hz	4	
Monaco	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015

Mongolia	400 V	50 Hz	4	
Montenegro	400 V	50 Hz	3, 4	
Montserrat (Leeward Islands)	400 V	60 Hz	4	
Morocco	380 V	50 Hz	4	
Mozambique	380 V	50 Hz	4	
Myanmar (<i>formerly Burma</i>)	400 V	50 Hz	4	
Namibia	380 V	50 Hz	4	
Nauru	415 V	50 Hz	4	
Nepal	400 V	50 Hz	4	
Netherlands	400 V	50 Hz	3	IE2 mandatory June 16,2011and IE3 January 01, 2015
Netherlands Antilles	220 V / 380 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
New Caledonia	380 V	50 Hz	3, 4	
New Zealand	415 V	50 Hz	3, 4	IE2 mandatory April 2006 and IE expected for near future (2013)
Nicaragua	208 V	60 Hz	3, 4	
Niger	380 V	50 Hz	4	
Nigeria	400 V	50 Hz	4	
Norway	400 V	50 Hz	3	IE2 mandatory June 16,2011and IE3 January 01, 2015
Oman	415 V	50 Hz	4	
Pakistan	400 V	50 Hz	3	
Palau	208 V	60 Hz	3	
Panama	190 V	60 Hz	3	
Papua New Guinea	415 V	50 Hz	4	
Paraguay	380 V	50 Hz	4	
Peru	220 V	60 Hz	3	
Philippines	380 V	60 Hz	3	
Poland	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Portugal	400 V	50 Hz	3, 4	
Puerto Rico	208 V	60 Hz	3, 4	
Qatar	415 V	50 Hz	3, 4	
Réunion Island	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Romania	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Russian Federation	400 V	50 Hz	4	
Rwanda	400 V	50 Hz	4	
St. Kitts and Nevis (Leeward Islands)	400 V	60 Hz	4	
St. Lucia (Windward Islands)	400 V	50 Hz	4	

St. Vincent (Windward Islands)	400 V	50 Hz	4	
San Marino	400 V	50 Hz	4	
Saudi Arabia	190 V / 380 V***	60 Hz***	4	
Senegal	400 V	50 Hz	3, 4	
Serbia	400 V	50 Hz	3, 4	
Seychelles	240 V	50 Hz	3	
Sierra Leone	400 V	50 Hz	4	
Singapore	400 V	50 Hz	4	IE2 mandatory for governemental projects
Slovakia	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Slovenia	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Somalia	380 V	50 Hz	3, 4	
South Africa	400 V	50 Hz	3, 4	
Spain	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Sri Lanka	400 V	50 Hz	4	
Sudan	400 V	50 Hz	4	
Suriname	220 V	60 Hz	3, 4	
Swaziland	400 V	50 Hz	4	
Sweden	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Switzerland	400 V	50 Hz	3, 4	IE2 mandatory June 16,2011and IE3 January 01, 2015
Syria	380 V	50 Hz	3	
Tahiti	380 V	50 Hz / 60 Hz ****	3, 4	
Tajikistan	380 V	50 Hz	3	
Taiwan	380 V	60 Hz	3, 4	IE2 recommended
Tanzania	400 V	50 Hz	3, 4	
Thailand	380 V	50 Hz	3, 4	
Togo	380 V	50 Hz	4	
Tonga	415 V	50 Hz	3, 4	
Trinidad & Tobago	200 V	60 Hz	3, 4	
Tunisia	400 V	50 Hz	4	
Turkey	400 V	50 Hz	3, 4	
Turkmenistan	380 V	50 Hz	3	
Uganda	415 V	50 Hz	4	
Ukraine	380 V	50 Hz	4	
United Arab Emirates	415 V	50 Hz	3, 4	IE2 recommended June 2011
United Kingdom	400 V	50 Hz	4	IE2 mandatory June 16,2011and IE3 January 01, 2015

United States of America	120/208 V / 230/460 V	60 Hz	3, 4	Premium (IE3) mandatory December 19,2010
Uruguay	220 V	50 Hz	3	
Uzbekistan	380 V	50 Hz	4	
Venezuela	240 V	60 Hz	3, 4	
Vietnam	380 V	50 Hz	4	
Virgin Islands	190 V	60 Hz	3, 4	
Western Samoa	400 V	50 Hz	3	
Yemen, Rep. of	400 V	50 Hz	4	
Zambia	400 V	50 Hz	4	
Zimbabwe	415 V	50 Hz	3, 4	

* In Brazil there is no standard voltage. Most states use 127 V electricity (single-phase) and 220 V (three-phase) (Acre, Amapá, Amazonas, Espírito Santo, Mato Grosso do Sul, Maranhão, Pará, Paraná, Rondônia, Roraima, Sergipe and Minas Gerais). Other – mainly northeastern – states are on 220 V (single-phase) and 380 V (three-phase) (Alagoas, Brasília, Ceará, Mato Grosso, Goiás, Paraíba, Rio Grande do Norte, Santa Catarina and Tocantins). Although in most parts of the states of Bahia, São Paulo, Rio de Janeiro and Rio Grande do Sul 127 V (single-phase) and 220 V (three-phase) is used, the cities of Santos, Jequié, Jundiá, São Bernardo do Campo, Novo Friburgo, Bagé, Caxias do Sul and Pelotas run on 220 V (single-phase) and 380 V (three-phase). The states of Pernambuco and Piauí use 220 V (single-phase) and 380 V (three-phase), except for the cities of Paulista and Teresina (127 V single-phase and 220 V three-phase).

** Although the mains voltage in Japan is the same everywhere, the frequency differs from region to region. Eastern Japan uses predominantly 50 Hz (Tokyo, Kawasaki, Sapporo, Yokohama, Sendai), whereas Western Japan prefers 60 Hz (Osaka, Kyoto, Nagoya, Hiroshima).

*** In most parts of Saudi Arabia - such as the Dammam and al-Khobar area - 190 V three-phase electricity is used (110 V single-phase). 220 V (single-phase) and 380 V (three-phase) can be found as well.

**** In Tahiti the frequency is 60 Hz, except for the Marquesas archipelago where it is 50 Hz.