



TecNote no. 10
World electrical energy supply

Technical note no. 10

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Preface

“Technical note” is a collection of technical documents focused on the application of *GE Digital Energy • IMV* UPS system.

These documents are realized for salesmen, engineers, technicians and for all the people who are looking in more details the information given on the product descriptions.

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Country	Frequency	Voltage	
	Hz	Single phase	Three phase

Country	Frequency	Voltage	
	Hz	Single phase	Three Phase

A

Afghanistan	50	220 V	380 V
Algeria	50	127 V	220 V
	50	220 V	380 V
American Samoa	60	120/240 V	240 V
	60	240/480 V	480 V
Angola	50	220 V	380 V
Anguilla	50	220 V	
Antigua, Barbuda	60	230/400 V	400 V

Argentina	50	220 V	380 V
Armenia	50	220 V	
Aruba	60	115/127 V	
Australia	50	240/415 V	415 V
Austria	50	230 V	400 V
Azerbaijan	50	220 V	
Azores	50	220/380 V	380 V

B

Bahamas	60	120/208 V	208 V
	60	120/240 V	240 V
Bahrain	50	230/400 V	400 V
	60	230/400 V	400 V
Balearic Islands	50	127 V	220 V
	50	220 V	380 V
Bangladesh	50	220/380 V	380 V
Barbados	50	115/200 V	200 V
	50	115/230 V	230 V
Belarus	50	220 V	
Belgium	50	230 V	400 V
Belize	60	110/220 V	220 V
	60	220/440 V	440 V
Benin	50	220 V	380 V
Bermuda	60	120/208 V	208 V
	60	120/240 V	240 V

Bolivia	50	110/220 V	220 V
	50	115/230 V	230 V
	50	220 V	380 V
	50	230/400 V	400 V
Bosnia-Herzegovina	50	220 V	
Botswana	50	220 V	380 V
Brazil	60	110/220 V	220 V
	60	115/220 V	220 V
	60	115/230 V	230 V
	60	125/216 V	216 V
	60	127/220 V	220 V
	60	220/380 V	380 V
	60	220/440 V	440 V
60	230/400 V	400 V	
Brunei Darussalam	50	240 V	415 V
Bulgaria	50	220 V	380 V
Burkina Faso	50	220 V	380 V



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Burma	50	230/400 V	400 V
Burundi	50	220 V	380 V

Country	Frequency	Voltage	
	Hz	Single phase	Three Phase

C

Cambodia	50	120 V	208 V
	50	220/380 V	380 V
Cameroon	50	127 V	220 V
	50	220/380 V	380 V
	50	230/400 V	400 V
Canada	60	120/208 V	208 V
	60	120/240 V	
	60		600 V
Canary Island	50	127/220 V	220 V
	50	220/380 V	380 V
Cape Verde	50	220/380 V	380 V
Cayman Islands	60	120/240 V	240 V
Central African Rep.	50	220 V	380 V
Chad	50	220 V	380 V
Channel Islands	50	230 V	400 V
	50	240 V	415 V
Chile	50	220/380 V	380 V

China	50	220 V	380 V
Christmas Island	50	240 V	
Cocos Island	50	240 V	
Colombia	60	110/220 V	220 V
	60	120/208 V	208 V
	60	150/240 V	240 V
Comoros	50	220 V	380 V
Congo	50	220 V	380 V
Cook Islands	50	240 V	
Costa Rica	60	120/240 V	240 V
Croatia	50	220 V	
Cuba	60	120 V	
Curacao Island	60	110-220 V	
Cyprus	50	240 V	415 V
Czech Republic	50	220/380 V	380 V

D

Denmark	50	230 V	400 V
Djibouti	50	220 V	380 V

Dominica	50	230 V	400 V
Dominican Republic	60	110/220 V	220 V



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Country	Frequency	Voltage	
	Hz	Single phase	Three Phase

E

Ecuador	60	120/208 V	208 V
	60	120/240 V	240 V
	60	127/220 V	220 V
Egypt	50	220/380 V	380 V

El Salvador	60	115/230 V	230 V
Equatorial Guinea	50	220 V	
Estonia	50	220 V	
Ethiopia	50	220 V	380 V

F

Faroe Islands	50	220/380 V	380 V
Fiji	50	240/415 V	415 V
Finland	50	230 V	400 V

France	50	230 V	400 V
French Guiana	50	220/380 V	380 V

G

Gabon	50	220 V	380 V
Gambia	50	220 V	380 V
Georgia	50	220 V	
Germany	50	230 V	400 V
Ghana	50	220/400 V	400 V
Gibraltar	50	240 V	415 V
Greece	50	230 V	400 V
Greenland	50	220/380 V	380 V
Grenada	50	230 V	400 V

Guadeloupe	50	220/380 V	380 V
Guam	60	110/220 V	220 V
	60	120/208 V	208 V
Guatemala	60	120/240 V	240 V
Guinea	50	220/380 V	380 V
Guinea Bissau	50	220/380 V	380 V
Guyana	50	110/220 V	220 V
	60	110/220 V	220 V

H

Haiti	60	110/220 V	220 V
	60	120/208 V	208 V
Honduras	60	110/220 V	220 V

Hong Kong	50	200/346 V	346 V
Hungary	50	220/380 V	380 V



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	Hz	Single phase	Three phase

Country	Frequency	Voltage	
	Hz	Single phase	Three Phase

I

Iceland	50	220/380 V	380 V
India	50	220 V	380 V
	50	230 V	400 V
	50	230 V	415 V
Indonesia	50	127 V	220 V
	50	220 V	380 V
Iran	50	220/380 V	380 V

Iraq	50	220 V	380 V
Ireland	50	240 V	415 V
Isle of Man Douglas	50	240 V	415 V
Israel	50	230 V	400 V
Italy	50	230 V	400 V
Ivory Coast	50	220 V	380 V

J

Jamaica	50	110/220 V	220 V
Japan	50	100/200 V	200 V
	60	100/200 V	200 V

Jordan	50	220/380 V	380 V
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K

Kazachstan	50	220 V	
Kenya	50	240 V	415 V
Korea	60	100/200 V	
	60	105/210 V	
	60	220 V	380 V

Kuwait	50	240 V	415 V
Kyrgystan	50	220 V	

L

Laos	50	220 V	380 V
Latvia	50	220 V	
Lebanon	50	110 V	190 V
	50	220 V	380 V
Lesotho	50	220 V	380 V
Liberia	60	120/208 V	208 V
	60	120/240 V	240 V

Libya	50	127 V	220 V
	50	230 V	400 V
Liechtenstein	50	230/400 V	400 V
Lithuania	50	220 V	
Luxembourg	50	230 V	400 V



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	Hz	Single phase	Three Phase

M

Macau	50	220/380 V	380 V
Madagascar	50	127/220 V	220 V
	50	220/380 V	380 V
Madeira	50	220/380 V	380 V
Majorca	50	127/220 V	220 V
	50	220/380 V	380 V
Malawi	50	230/400 V	400 V
Malaysia	50	240 V	415 V
Maldives	50	230 V	400 V
Mali	50	220 V	380 V
Malta	50	240 V	415 V
Martinique	50	220/380 V	380 V

Mauritania	50	220 V	
Mauritius	50	230 V	400 V
Mexico	60	127/220 V	220 V
Moldavia	50	220 V	
Monaco	50	127 V	220 V
	50	220 V	380 V
Mongolia	50	220 V	
Montserrat	60	230 V	400 V
Morocco	50	127 V	220 V
	50	220 V	380 V
Mozambique	50	220/380 V	380 V
Myanmar	50	230 V	

N

Namibia	50	220-250 V	
Nepal	50	220 V	440 V
Netherland Antilles	60	115/230 V	
	60	120/208 V	208 V
	50	127/220 V	220 V
	50	220/380 V	380 V
Netherlands	50	220 V	380 V
New Caledonia	50	220/380 V	380 V
New Zealand	50	230/400 V	400 V

Nicaragua	60	120/240 V	240 V
Niger	50	220/380 V	380 V
Nigeria	50	230 V	415 V
Norfolk Island	50	240 V	
Northern Mariana Island	60	115 V	
Norway	50	230 V	230 V



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Country	Frequency	Voltage	
	Hz	Single phase	Three Phase

O

Okinawa	60	100/200 V	
	60	120/240 V	

Oman	50	240 V	415 V
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P

Pakistan	50	220/380 V	380 V
	50	230/400 V	400 V
Panama	60	110/220 V	220 V
	60	115/230 V	230 V
	60	120/208 V	208 V
Papua New Guinea	50	240 V	415 V
Paraguay	50	220 V	380 V
Peru	60	110/220 V	220 V
	50	220 V	220 V

Philippines	60	110/220 V	220 V
	60	115/230 V	230 V
Pitcairn	50	240 V	
Poland	50	220/380 V	380 V
Portugal	50	230 V	400 V
Puerto Rico	60	120/240 V	240 V

Q

Qatar	50	240 V	415 V
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R

Romania	50	220 V	380 V
Russian Federation	50	220/380 V	380 V

Rwanda	50	220 V	380 V
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S

Saudi Arabia	60	127 V	220 V
	50	220 V	380 V
Senegal	50	127/220 V	220 V
Seychelles	50	240 V	
Sierra Leone	50	230 V	400 V

Singapore	50	230 V	400 V
Slovakia	50	220 V	
Slovenia	50	220 V	



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	Hz	Single phase	Three phase
Somalia	50	110 V	220 V
	50	220 V	380 V
	50	220 V	440 V
South Africa	50	220/380 V	380 V
	50	230/400 V	400 V
	50	250/433 V	433 V
Spain	50	240 V	415 V
Sri Lanka	50	230 V	400 V
St. Kitts & Nevis	60	230 V	400 V
St. Lucia	50	240 V	416 V
St. Pierre & Miquelon	60	115 V	

Country	Frequency	Voltage	
	Hz	Single phase	Three Phase
St. Vincent & Grenadines	50	230 V	400 V
Sudan	50	240 V	415 V
Suriname	60	115/230 V	230 V
	50	127/220 V	220 V
Svalbard & Jan Mayen Island	50	220 V	
Swaziland	50	230 V	400 V
Sweden	50	230 V	400 V
Switzerland	50	230/400 V	400 V
Syria	50	220/380 V	380 V

T

Tahiti	60	127/220 V	220 V
Taiwan	60	110/220 V	220 V
Tadjikistan	50	220 V	
Tanzania	50	230/400 V	400 V
Thailand	50	220/380 V	380 V
Togo	50	127 V	220 V
	50	220 V	380 V

Tonga	50	240/415 V	415 V
Trinidad and Tobago	60	115/230 V	230 V
	60	230/400 V	400 V
Tunisia	50	127 V	220 V
	50	220 V	380 V
Turkey	50	220/380 V	380 V
Turkmenistan	50	220 V	

U

Uganda	50	240/415 V	415 V
Ukraine	50	220 V	
United Arab Emirates	50	220/380 V	380 V
	50	230/400 V	400 V
	50	240/415 V	415 V
United Kingdom	50	240 V	415 V

United States	60	120/208 V	208 V
	60	120/240 V	
	60	277 V	480 V
Upper Volta	50	220 V	380 V
Uruguay	50	220 V	220 V
Uzbekistan	50	220 V	



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Country	Frequency	Voltage	
	Hz	Single phase	Three Phase

V

Venezuela	60	120/240 V	240 V
Vietnam	50	120 V	208 V
	50	127 V	220 V
	50	220 V	380 V

Virgin Islands	60	120/240 V	240 V
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W

Western Samoa	50	230/400 V	400 V
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Y

Yemen	50	230 V	400 V
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Yugoslavia	50	220 V	380 V
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Z

Zaire	50	220/380 V	380 V
Zambia	50	220 V	380 V

Zimbabwe	50	220/380 V	380 V
	50	230/400 V	400 V