

TABLE 1 VOLTAGE TERMS AND VALUES

Range	Voltage term ¹	Value ¹	Description
Low	Safety extra-low voltage ²	≤42.4V peak or ≤60V dc	"Safe," user-touchable secondary circuit designed and protected to remain under safe voltage levels in normal operation and under single fault; double insulation
Low	Extra-low voltage ²	≤42.4V peak or ≤60V dc	Secondary, nontouchable circuit separated from hazardous voltage by basic insulation; not safety extra-low voltage or limited-current circuit and not fault-tolerant
Low	Low voltage ³	≤1 kV ac	"Hazardous-voltage" circuit, such as primary circuit connected to low-voltage-mains supply, such as 120/230V ac ⁶
High	Medium voltage ⁴	>1 kV ac to 100 kV ac	"Distribution grid" from substations distributed to residences and commercial buildings
High	High voltage ⁴	≥100 kV ac to ≤230 kV ac	"Transmission-grid" long-distance transmission-line voltage with typical maximum distances of approximately 300 miles (483 km)
High	Extra-high voltage ⁵	>230 kV ac to ≤800 kV ac	"Transmission-grid" long-distance transmission-line voltage with typical maximum distances of approximately 300 miles (483 km)
High	Ultrahigh voltage ⁵	>800 kV ac to 2 MV ac	"Transmission-grid" long-distance transmission-line voltage with typical maximum distances of approximately 300 miles (483 km)

¹Terms and values are for illustration and may vary between standards.

²IEC 60950-1 and other standards.

³NEC-NFPA 70 low voltage=600V; ANSI/IEEE low voltage=1 kV ac; European Union's Low-voltage Directive: low voltage 50V to 1 kV ac, 75 to 1500V dc.

⁴ANSI C84.1 and IEEE 100.

⁵IEEE 1312 and IEEE 100.

⁶Hazardous voltage is greater than 30V rms and 42.4V peak or 60V dc. Test-and-measurement products are greater than 33V rms and 48.7V peak or 70V dc. National deviations may exist.