

# ES1, LPS and SELV voltage and source requirements summary<sup>Note 1</sup>

Parameter	IEC 62368-1 ES1	IEC 62368-1 LPS	IEC 61140 SELV	IEC 60364-4-41 Clause 414 SELV	IEC 60364-7-716 716.414 SELV
Voltage d.c limit	Subclause 5.2.1.1 ≤ 60 V @ > 2 mA > 60 V @ ≤ 2 mA ES2 limits under single fault of a basic safeguard	Table Q.1 ≤ 60 V open circuit	Subclause 5.2.6 Under no circumstances touch voltage ≤ 60 V in dry location with no large contact areas and ≤ 15 V in all others	Subclause 414.1.1 Limitation of voltage ≤ 120 V, IEC 60364-7 series may limit to a lower value	Subclause 716.414.1.1 The voltage shall be limited to ≤ 60 V in dry locations, ≤ 15 V in all others
Source			Subclause 5.2.6 - Safety Isolating Transformer  - Equivalent (motor-generator) - Electrochemical (battery)	Subclause 414.3 - Safety Isolating Transformer meeting IEC 61558-2-6  - Equivalent (motor-generator) - Electrochemical (battery) - Electronic device, voltage limit met with internal fault with certain exceptions	Subclause 716.414.3.1/4 - Safety Isolating Transformer meeting IEC 61558-2-6 and IEC 61558-2-16 - Equivalent (motor-generator) - Electrochemical (battery) - Electronic device, voltage limit met with internal fault <sup>Note 2</sup>

Note 1: For actual requirements consult the referenced standard.

Note 2: IEC 60364-7-716 UK Some Countries Note (SCN): Electronic device not permitted for power feeding of ICT cable passing through, or serving, certain zones in special locations described in 7-701 (Bath or Shower rooms), 7-702 (Swimming pools and fountains), 7-703 (Saunas), 7-706 (conducting locations with restricted movement) and 7-710 (Medical locations).