

## IEC / EN62368-1

The IEC62368-1 new standard will definitely impact almost all SMPS models in the way of designing for safety compliance. It will have new requirements for safety critical components summarized below.

1. Single fault condition (include open circuit) will apply for any bleeder resistors during Capacitor discharge test. However, single fault test on the any of the bleeder resistors can be waived if such resistor is tested under clause G.10.2.
2. Y-capacitor (connected from any part of the primary circuit to protective earth) should be minimum Y1 or two Y2 capacitors in series.
3. Internal/external wires should comply to IEC60332-1-2/-1-3/-2-2 or IEC60695-11-21.
4. Positive temperature coefficient thermistors used for over temperature protections (OTP) should comply to IEC60730-1 and body should have minimum V-1 flammability rating.
5. Relays should comply to IEC61810-1
6. Optocouplers should comply to IEC60747-5-4
7. Materials used inside fire enclosure should have a minimum flammability rating of V-1.

## European Approvals for Medical



EN60601-1 3<sup>rd</sup> Ed/A1:2013 mandatory implementation date of 24 December 2018 was pulled in to 31 December 2017. Anticipate a mass upgrade will start by January 2017.

## India



The DeitY (Department of Electronics & Information Technology) has moved the mandatory implementation date of mandatory Registration by BIS (Bureau of Indian Standards) on power adaptors from 7 May 2015 to 1 December 2015. This will give manufacturers more time to obtain BIS Registration on external power supplies intended for India.

## Australia Safety & EMC Approval: C-tick to RCM



On **1 March 2016** the Australian Communication and Media Authority (ACMA) is scheduled to replace C-tick with a new consolidated safety & EMC “Regulatory Compliance Mark” (RCM). Labeling with the C-tick mark is allowed prior to this date, and internal power supplies labeled with the C-tick before the deadline will NOT need to be re-labeled. However, Australia-bound external power supplies manufactured starting 1 March 2016 shall use the RCM as the compliance label.

## US DoE Level VI Energy Efficiency



On **10 February 2016** the US Department of Energy (DoE) is scheduled to implement mandatory Level VI energy efficiency and no-load power requirements for all External Power Supplies (EPS's) entering the USA. Although Level VI and Level V-marked EPS's shall continue to be allowed entry into the US before this date, starting 10 February 2016 the DoE shall only allow entry of Level VI EPS's and those product exempted under DoE regulations (e.g., “indirect operation” EPS's which cannot be used to operate a consumer product without the assistance of a battery).

## Customs Union (EAC)



Customs Union was formed between Russia, Belarus and Kazakhstan on 1<sup>st</sup> July 2010. The EAC (Euro Asian Customs Union) Approval became the harmonized for all its member states.

Armenia was included as member of Customs Union last 1<sup>st</sup> January 2015. EAC Certification now covers Russia, Belarus, Kazakhstan and Armenia.