

# European Power Supplies Manufacturers' Association EEIG

## 1Q18 Management Committee Meeting Minutes

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Venue: Puls offices, Munich, Germany

Date: 15th March 2018

Present were:

### **MC Members**

Bernhard Erdl	(BE)	Puls, Chairman
Paul Lee	(PL)	(secretariat)
Hannes Schachenmayr	(HS)	Vicor
Vlad Grigore	(VG)	Efore
Clemens Klemm	(CK)	Siemens
Miro Adzan	(MA)	TI
Frank Vondenhoff	(FV)	Bel Power
Scott Parish	(SP)	Murata
Shane Callahagn	(SC)	Excelsys
Marius Ciorica	(MC)	Nextys
Paul Conway	(PC)	TC Chairman (by conference call)
Markus Hallenberger	(MH)	Infineon
Clemens Klemm	(CK)	Siemens
Ewald Braith	(EB)	Puls

### **Apologies:**

Allesandro leopardi	Efore
Mathias Emsermann	Phoenix Contact
Manfred Schlenk	Infineon, Vice Chairman
Andreas Hoischen	Delta
Dave Connett	EPCOS

### **Guests**

Rolf Winter	(RW)	ZVEI
Gregor Schoss	(GS)	SiQ
Torsten Keinath	(TK)	Inpotron

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## **Actions from last meeting**

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During discussions it was suggested that no-cost summary versions of the technical documents available for sale on the website could be included. PL agreed to work on this. Outstanding **Action PL**

There was interest in proposing work on standards in electric vehicle high power wireless charging. DC mentioned that he may have contacts that could contribute to a TC study. DC to check. Outstanding **Action DC**

It was generally agreed that it should be a high priority for the TC to look at new general standards such as EN 61204-7 and identify differences. PL to brief PC. **Done**

Accounts for 2015/2016 have been audited by John Quinlan with no issues. PL will get a written statement from John for the record. Email record received

PL presented some new 'off-line' versions of the website format for comment. A version with a 'clean' background and different image for the home page was approved. PL will make this live and ask for comments from members. **Done**

Closer involvement in the work of the CENELEC committee working on standards. PL will discuss with PC and the CENELEC committee secretary what is possible. Outstanding **Action PL**

UL508 to IEC 61010 transition. Further clarification needed from UL. PL will work with BE on the format of this request to UL. Action with Michael Raspotnig, PULS **Action Puls**

## **Presentation by Rolf Winter ZVEI**

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A very interesting presentation was given by Rolf Winter about ZVEI , the German Electrical and Electronic Manufacturers' Association. Several EPSMA members are also members of ZVEI and it was agreed that we should try to communicate between the two organisations for mutual benefit. RW provided links in the presentation where EPSMA members can see news. PL will put RW on the EPSMA newsletter distribution and put a link to ZVEI on [www.epsma.org](http://www.epsma.org). **Action PL**

Post meeting - RW has provided a copy of his presentation which will be distributed with these minutes to EPSMA MC members and guests present.

In general discussion with RW and MC members, RW mentioned that a worldwide copper shortage is coming because of copper use in electric vehicles and their infrastructure, likely to affect all power supply manufacturers in some way.

## Technical Committee update

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Paul Conway, technical committee chairman was conferenced in and gave his quarterly report. This is attached to these minutes in a copy of the meeting foils.

Highlights are that three documents are ready for review by the MC and release:

- Accurate Efficiency measurements 2<sup>nd</sup> edition including new chapters on '3-phase power factor' and 'power sources'
- CE Marking Guidance for Power Supplies Issue 2 including latest requirements of the Low Voltage Directive, EMC Directive, RoHS II Directive, WEEE II Directive, Medical Directive, ATEX Directive and RED Directive.
- PFC Harmonic Current Emissions – Guide to EN61000-3-2:2014 2<sup>nd</sup> edition March 2018 explains the changes since the First Edition and has sections on EMI, EMC, Harmonics, and PFC Topologies.

The management committee expressed its thanks and appreciation to the contributing TC members for their work in producing these documents.

The documents will be distributed to the MC members for their comments before release. Members are asked to respond by 20<sup>th</sup> April to PL at the secretariat. PL will then make changes as necessary and release.

**Action All**

The TC needs guidance from the MC on next topics to report on. Members are asked to give this some consideration so we can discuss at the next MC meeting in June.

Possible topics are listed in the TC report attached.

**Action All**

CE marking was discussed generally with MC members reporting difficulties with standards of acceptance between different countries such as Turkey, Italy, south Korea and Saudi Arabia. An example issue is whether samples or evaluation boards need CE marking. The meeting felt obviously not but TI has had problems with this. It was suggested that the secretariat keeps a log of issues and solutions for the general benefit of members. This will be an area of the website. Members are asked to set up internal procedures that inform PL of relevant information so the log can be maintained.

**Action All**

The successor standard to IEC 60950, IEC 62368 was briefly discussed in the context of worldwide acceptance. GS noted that IEC 60950 will still be current in China and Japan even after it is no longer accepted in Europe and the US. IEC 62368 is however in the 'translation' stage in China. GS noted however that products approved to IEC 62368 can be relatively easily evaluated for IEC 60950 separately for these markets. Further discussion about IEC 62368 is covered later in these minutes.

## Membership Update

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PL summarized the membership situation:

One new associate member is welcomed, the test house SiQ,

23 full members, 2 suppliers and 6 associates.

The Fraunhofer institute in Freiburg have expressed an interest in associate membership and are still waiting for internal legal approval.

## Finance Update :

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- PL summarized the financial situation with the following highlights:
- No document sales although some are expected after release of the new documents mentioned
- All membership fees received except three members but all are in process
- Bank at 1<sup>st</sup> March £41,802
- Auditor needed for 2016/2017 accounts – BE volunteered Puls services
- Budget for year ending 30<sup>th</sup> September 2018 shows a surplus of £3393

## Website Update

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PL showed the new website scheme with a 'slideshow' of member news featured.

Server-side members' area password access service will be withdrawn later in the year so an alternative method is needed. PL has found various possibilities which will be investigated. It is likely that username and passwords can be retained so users should not see a practical change.

Website traffic is generally increasing with more searches on the make-up of the EPSMA and its members.

PL encouraged members to continue sending company news to be included in the website.

PL presented analytics showing the usage of the website geographically and by page.

## **UL508/IEC61010 discussion**

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Michael Rastpotnig of Puls will assemble some questions to be sent to UL by EPSMA for clarification of the issues previously discussed in the transition of UL508 to IEC 61010

### **Action MR**

## **IEC 62368 concerns**

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The secretariat had received a comment from Tracopower about concerns they have with IEC 62368. These comments had been distributed to members and comments by EPSMA members and UL on the issues had been circulated. The meeting foils attached give transcripts. The secretariat also received comments from Phoenix Contact on the same and similar issues and although a representative from Phoenix Contact could not attend, PL was sent a set of slides to show at the meeting outlining their concerns.

In summary, there is an anomaly that a 48V output PSU operating normally is classified as ES1, broadly SELV equivalent, whereas the same PSU in a hiccup mode, protecting itself and the load from stress, is classified as ES2 if the output exceeds 42.4V peak. This arises from the standard applying different ES1 and ES2 limits depending on the voltage being DC or AC, hiccupping being considered very low frequency AC. UL say that this is the case and it is different to IEC 60950 and suggest that 48V PSU outputs are often not accessible and therefore not always subject to ES1 limits. The meeting saw this as an unnecessary extra stipulation and endorsed the objection to the clause in the standard.

Phoenix Contact also point out that when assessing barrier voltages with switching waveforms superimposed, because IEC 62368 now takes frequency into account, it is unclear what frequency to use as there is a fundamental switching frequency with spikes and higher frequency ringing on edges. The 'spike' waveform is difficult to measure accurately and depends on measurement method and measurement bandwidth. Phoenix Contact suggest that the high frequency spike amplitude and frequency should be used for ES assessment with a measurement bandwidth of at least 100 times the fundamental switching frequency. The meeting agreed that this is an issue and endorse the Phoenix Contact suggestions.

Phoenix Contact also point out that a transient following a single fault is not covered in IEC62368 which only considers steady state and it is unclear what voltage is considered for ES rating, an initial transient or a 'settled' value. Phoenix Contact suggest transients during 10ms after a single fault should be ignored as in IEC 60950 and IEC 61010. Times less than 10ms are seen as uncritical in for example IEC60479-1 where permissible touch current is only measured after 10ms and in IEC61008-1 defining RCCB operation as 40ms for personnel protection. The meeting agreed that 10ms would be a sensible limit and endorsed the Phoenix Contact suggestions.

## **Market Discussion**

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The meeting discussed the general market conditions and noted that the component allocation situation seems to be a real market effect rather than distributors stock-piling or suppliers 'rationing' the market to keep prices high. Suppliers are adding capacity to cope. The excess demand is seen coming from China, Europe, Japan and the US and had not been widely predicted.

RW from ZVEI commented that the effect is across the whole range of electrical equipment.

GS from SiQ noted that approval of products to IEC 62368 is, and will be a bottleneck with backlogs building up.

## **Any other Business**

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Next MC meeting will be at the PCIM exhibition in Nuremberg on Tuesday the 5<sup>th</sup> June. Meeting will be in a room kindly provided by Infineon from 1pm to 5pm approximately. Room location will be confirmed nearer the date.

The meeting concluded with a tour of the new Puls offices. The design of the office has won several awards and is a great example of a modern working environment designed around the needs and wishes of the employees.