PM3000ACE-002 and IEC Harmonics and Flicker – Jan 2006 Update.

Voltech is known and respected for supplying leading harmonics and flicker measurement solutions. We are committed to providing technically advanced, yet easy-to-use products that meet international standards both now and in the future.

Jan 2006.
The current model PM3000ACE-002 (and it's associated PC software) is compliant to the existing standards and remains available to form the heart of a full compliance harmonics and flicker test system. The relevant standards are listed on the next page.

Q3 2006
A compliant IEC Harmonics and Flicker measuring mode will be released for use with Voltech's flagship PM6000 power analyzer. At this time, only the PM6000 will be recommended for full compliance IEC test systems.

2007
Voltech continues to monitor the IEC standards development process and recognises that the standard for harmonics measurement equipment, IEC 61000-4-7, is likely to change in 2007. When the change is published, the PM3000ACE-002 will not fully comply with the standard. Unfortunately the PM3000ACE-002 hardware cannot be upgraded to comply with the IEC61000-4-7 due for publication in 2007.

Upgrading a PM3000ACE-002 to a PM6000 for full compliance harmonics and flicker.
By launching the PM6000 Harmonics and Flicker solution at least one year before new standards are implemented, we will maintain availability of a full compliance solution to customers. For customers who purchase a PM3000A-002 between now and the availability of the PM6000 harmonics and flicker solution, we will encourage the upgrade of a PM3000ACE to a PM6000 by the use of a generous buy-back or discount scheme.

Why Voltech?
Voltech manufactured the world's first commercial digital power analyzer, the PM1000, in the late 1980s. In 1994, the original version of the PM3000A (non CE marked) was the first in the world to have traceable, independent proof of accuracy for IEC harmonics and flicker measurements. The current PM3000ACE and its associated Windows software are fully compliant to the standards in force today. Voltech customers include UL, VDE and BSI Testing.
Free-of-charge, trial PC software (which includes extensive IEC reference material), is available from the Voltech website at: www.voltech.com. IEC standards may be obtained from www.iec.ch.

Standards Implemented by the PM3000ACE-002 - Jan 2006

Harmonic Limits

IEC 61000-3-2 - Consol. Ed. 2.1 (2001)
Scope: All electrical and electronic equipment rated <16A. 220 to 240V line to neutral at 50 or 60Hz.
Notes: This standard includes all amendments, including the amendment known as A14.

IEC 61000-3-12 - To be published.
Scope: All electrical and electronic equipment rated 16A < 75A. 230/400V 50 or 60Hz.
Notes: This standard will replace the technical report upon which it is closely based: IEC 61000-3-4.

Harmonic Measuring Equipment

IEC 61000-4-7 (2002)
Notes: The PM3000ACE meets the transitional requirements of this standard and will do so until at least the end of 2006.

Flicker Limits

IEC 61000-3-3 - Consol. Ed. 1.1 (2001)
Scope: All electrical and electronic equipment< 16A . 220 to 250V line to neutral at 50Hz.
Notes: This edition includes amendments for the manual switching test.

IEC 61000-3-11 Ed. 1 (2000)
Scope: All electrical and electronic equipment 16A < 75A. 220 to 250V 50Hz.

Flickermeters

IEC 61000-4-15 Ed. 1.1. (2003)
Notes: This is the specification for the design and type-testing of flickermeters. This standard supersedes IEC60868, which was withdrawn in 2003. Only 50Hz measurements are required by IEC61000-3-3.

IMPORTANT: The Non-'CE' PM3000A (last manufactured in 1995) cannot be upgraded to conform to IEC61000-4-15. It's flickermeter only complies with the requirements of IEC868. The non'CE' analyzer is compliant to the existing standard for harmonics, as described above.