Latest developments in IEC regarding “New Motor Technology“

Dr.-Ing. Martin Doppelbauer
Manager Motor Development
SEW Eurodrive GmbH&Co KG
76642 Bruchsal, Germany

November 2010
Revision of IEC 60034-1
• Special requirements for low-voltage synchronous motors will be added (terms, definitions, rating plate information)
• Tolerances on losses will be improved after test procedures are finalized

Revision of IEC 60034-2-1
• The Standard will be checked for applicability to generators and to low voltage synchronous machines

Revision of IEC 60034-2-3
• A direct torque test procedure for all kinds of converter operated, variable speed drives will be introduced

Revision of IEC 60034-30
• IE4 will be added
• Output power range will be extended to the low and high end
• Existing efficiency classes IE1, IE2 and IE3 will be made available for low-voltage synchronous motors
• Scope will be amended accordingly

Revision of IEC 60072-x
• Square-flanges for low-voltage synchronous motors will be added
• Frame sizes and possibly shafts for low-voltage synchronous motors will be added
• A series of preferred output torques (instead of power) will be added
• A series of preferred rated speeds should be added (not yet confirmed)