

Global Motor Systems Network



EMSA Newsletter - Zurich December 2019 - www.motorsystems.org

Dear,

Welcome to the latest edition of the Electric Motor Systems Annex ([EMSA](#)) Newsletter.

Events

A black banner with white text and logos. At the top left is the 'TOP MOTORS' logo. In the center is the '4E Electric Motor Systems' logo. To its right is the 'IMPACT ENERGY' logo. Further right is the 'SWISS energy' logo with the tagline 'our commitment. our vision.' Below the logos, the text 'MOTOR SUMMIT 2020' is written in large, bold, white capital letters. Underneath that, 'International' is written in a slightly smaller, bold, black font, flanked by two horizontal lines.

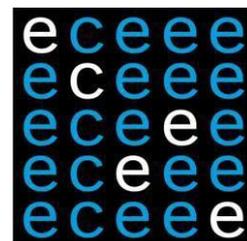
Next Motor Summit International on 18 – 19 November 2020 in Zurich: save the date!

The next Motor Summit International will take place on 18 – 19 November 2020 in Zurich, Switzerland. Further details will follow in 2020 – stay tuned!

More information: www.motorsummit.ch

**Industrial Efficiency 2020 – accelerating decarbonisation:
abstracts by 9 December**

The next Industrial Efficiency conference, organized by eceee, the European Council for an Energy Efficient Economy, will take place on 16–18 June 2020 in Gothenburg, Sweden. Abstracts can be submitted until 9 December 2019.



More information: www.eceee.org



EEMODS 2021

12. International Conference on Energy Efficiency in Motor Driven Systems
Stuttgart, Germany 21-23 September 2021

Next EEMODS on 21 - 23 September 2021 in Stuttgart: save the date!

The next international conference on Energy Efficiency in Motor Driven Systems will take place on 21 - 23 September 2021 in Stuttgart, Germany.

More information: www.eemods21.org

News

Coordination and Alignment of IEC and ISO Standards for Energy Efficient Electric Motor Driven Systems (CAISEMS) kicked off

The IEC Advisory Committee on Energy Efficiency (ACEE) launched on 20 September 2019 in Tokyo the CAISEMS project for the 'Coordination and Alignment of IEC and ISO Standards for Energy Efficient Electric Motor Driven Systems'. The current level of interaction of the 9 IEC and ISO TCs can be intensified and common terminology, boundary definitions, testing standards operating points, efficiency classification, etc. can be defined in the future. Interested parties are invited to join the CAISEMS project group.



The next meeting is planned on 20 November 2020 in Zurich Switzerland, as a side-event to the Motor Summit.

For more information, contact: Conrad U. Brunner cub@impact-energy.ch

[Download project brief](#)



EU introduces new motor and converter MEPS from 2021

The European Union published on 25 October 2019 the result of the revision of the Commission Regulation (EC) 640/2009 for electric motors. The new Commission Regulation (EU) 2019/1781 will require minimum requirements for a wider scope (0.12 kW - 1000 kW), will also include 8-pole motors and will abolish the former requirement of an IE2 motor plus a converter instead of IE3. Also, maximum losses for converters between 0.12 kW and 1000 kW at IE2 are requested. From 2023, IE4 will be required for motors between 75 kW and 200 kW.



Further details: [EMSA website](#) or see directly [Commission Regulation \(EU\) 2019/1781](#)

USA regulatory update

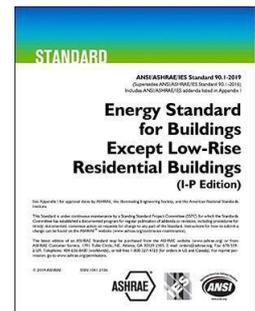


- **Water pumps:** Minimum requirements for certain clean water pumps take effect in the USA from 27 January 2020. The requirements are based on the Pump Energy Index. See [final rule](#).
- **Small motors:** a notice of proposed rulemaking to the test procedure for small electric motors and electric motors was published on April 23, 2019, proposing to allow testing according to IEC 60034-2-1:2014 in addition to the IEEE and CSA methods currently used in the US. See [notice](#).
- **Compressors:** a notice of petition for rulemaking pertaining to test procedures for compressors was published on 17 May 2019. Comments and information were sought related to the request to allow compressor manufacturers to test using either the US Department of Energy test procedure or the International Organization for Standardization 1217:2009 (ISO 1217) test method. See [petition](#).

[More information](#)

Fan Energy Index is the new metric in the recently published energy standard for buildings

The recently published ANSI/ASHRAE/IES Standard 90.1-2019, providing minimum requirements for energy-efficient design of most buildings, includes numerous energy-saving measures. Among these changes is the use of the fan energy index (FEI) as the metric for efficiency provisions for commercial and industrial fans and blowers.



[More information](#)

China to set IE3 as minimum requirement for motors



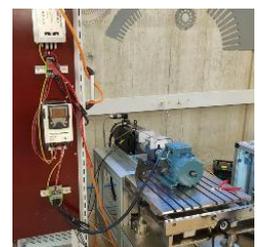
China updated the draft for the crucial GB 18613 "Minimum allowable values of energy efficiency and values of efficiency grade for motors" with the future motor efficiency requirements. The formal introduction date has not been set. The draft of the new standard specifies the energy efficiency grades, minimum allowable values of energy efficiency and test method for three-phase asynchronous motors, single-phase asynchronous motors and air conditioner fan motors. The minimum requirement for 3-phase asynchronous motors between 120 W and 1000 kW will be set at IE3.

Further details: [EMSA website](#)

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Global Round Robin for converters: 60 converters to be tested until the end of 2020

After the successful completion of phase 1 of the Global Round Robin for converters project in March 2019 and the definition of a Uniform Testing Protocol and a Standard Reporting Format, the phase 2 is now under way with 11 international test labs and more than 60 converters to be tested between 0.12 and 1000 kW. The results will be used to verify the test method and the reference loss values in IEC 61800-9-2, edition 2.

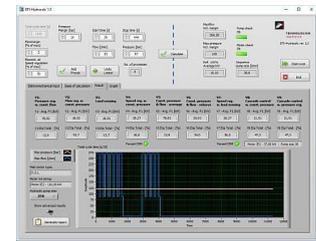


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[Download project overview](#)

Publications

Tool available for hydraulic systems

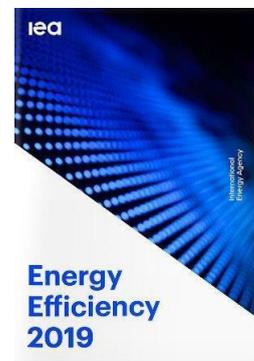
The latest addition to the family of tools by EMSA is the hydraulic calculator: DTI-Hydracalc. This tool evaluates all possible control strategies for a cyclic hydraulic installation and calculates the best solution in terms of motor & pump sizing for the best efficiency possible.



Download DTI-Hydracalc: www.motorsystems.org

IEA Energy Efficiency Market Report 2019: global energy efficiency progress slows

The International Energy Agency has published the Energy Efficiency Market Report 2019. According to this, global energy efficiency progress drops to slowest rate since the start of this decade. One key factor is that energy-intensive industries in countries including China and the United States increased their share of industrial production and pushed up demand for all primary energy fuels.



Watch [webinar](#) with key findings.

More information: www.iea.org/efficiency2019

Topmotors Best Practice: renewal of compressed air system

A comprehensive renewal of the compressed air system enabled the company CRIDEC SA in Switzerland, specialised in the disposal and recycling of hazardous waste, to halve the compressed air system's previous electricity consumption. The Topmotors Best Practice No. 12 gives an overview of the optimisation and its profitability.



[Download](#)

Best regards,

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EMSA is the Electric Motor Systems Annex of the International Energy Agency's Technology Collaboration Programme on Energy Efficient End-use Equipment 4E. Currently Australia, Austria, Denmark, Netherlands, Sweden, USA and Switzerland participate actively in EMSA. Canada, China, France, Japan, Korea,

Sweden and United Kingdom participate in other 4E Annexes.

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