

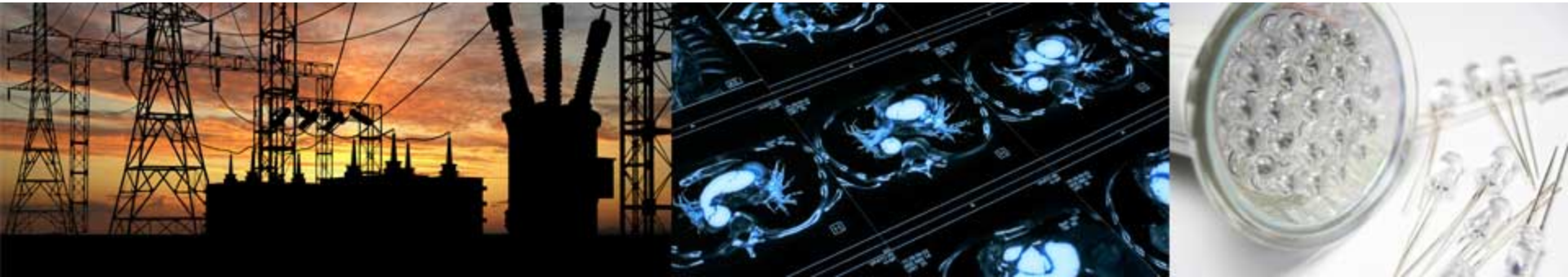
NEMA Experience with Other International Standards Organizations

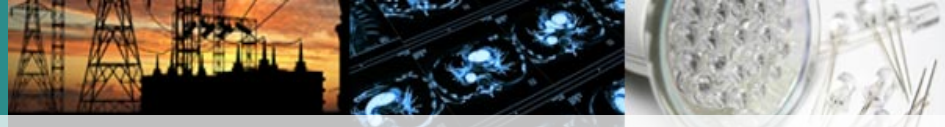
May 12, 2015

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The Association of Electrical Equipment and Medical Imaging Manufacturers





Examples of NEMA Members' Products

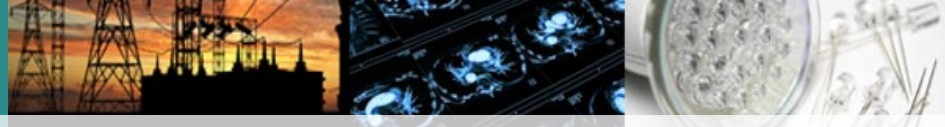
- Lighting products
- Electric motors
- LV Surge Protection
- CT scanners
- Nurse call stations
- Dry cell batteries
- Fuses
- Industrial controls
- Switchgear
- Transformers
- Smoke detectors
- HV Insulators
- Building wire
- Capacitors
- Ultrasound imaging
- Traffic controls
- Welding equipment
- Circuit breakers



International Standards

⚡ Engagement that leads to lowering trade barriers and growing markets

- 58 IEC and 3 ISO Technical Advisory Groups (TAGs) (mirror committees)
- 5 International Secretariats
- 500+ participants (members and staff) on committees of other organizations



Other International Standards Organizations

⚡ IEEE - SA <http://standards.ieee.org>

⚡ Data Communication Standards:

- Entity-based: 802. series
- Individual-based: 2030.5 series
- All are international; more than 300 people from 10+ countries
- Very open to twinning
- Contact: Bob Heile, bob.heile@ieee.org



Other International Standards Organizations

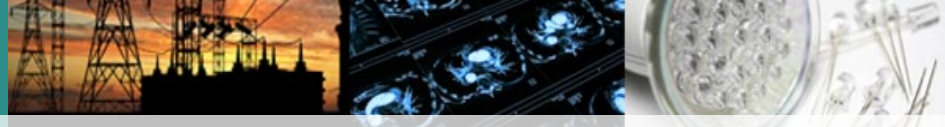
⚡ Open ADR Alliance <http://www.openadr.org>

⚡ Demand Response Standards:

- International participation, mainly from countries that manufacture communication equipment.
- Very open to twinning, via memoranda of understanding.
- Contact: Rolf Bienert rolf@openadr.org



The Association of Electrical Equipment and
Medical Imaging Manufacturers



Aiming for the Development of Performance Standards



Aiming for the Development of Performance Standards

- NEMA develops more than 400 standards;
all are *performance standards*.
- Three examples:
 - Motor standard MG-1 (1926)
 - Cable Tray standard VE-1
 - LED Lighting standard SS1 (2012)



Aiming for the Development of Performance Standards

⚡ Why are they needed?

- Parts fit, support proper weight of other products, components meet expectations.

⚡ Who benefits?

- Consumers: property owners, industrial operations, construction operations, etc.

⚡ How often are they updated?

- As needed: > or = to 5 years, sometimes 1 year.



Motor Efficiency Regulations

Energy Policy Act of 1992

- Effective October 1997
- General Purpose 1 – 200 HP at MG 1, table 12-11 Energy Efficient

Energy Policy Act of 2005

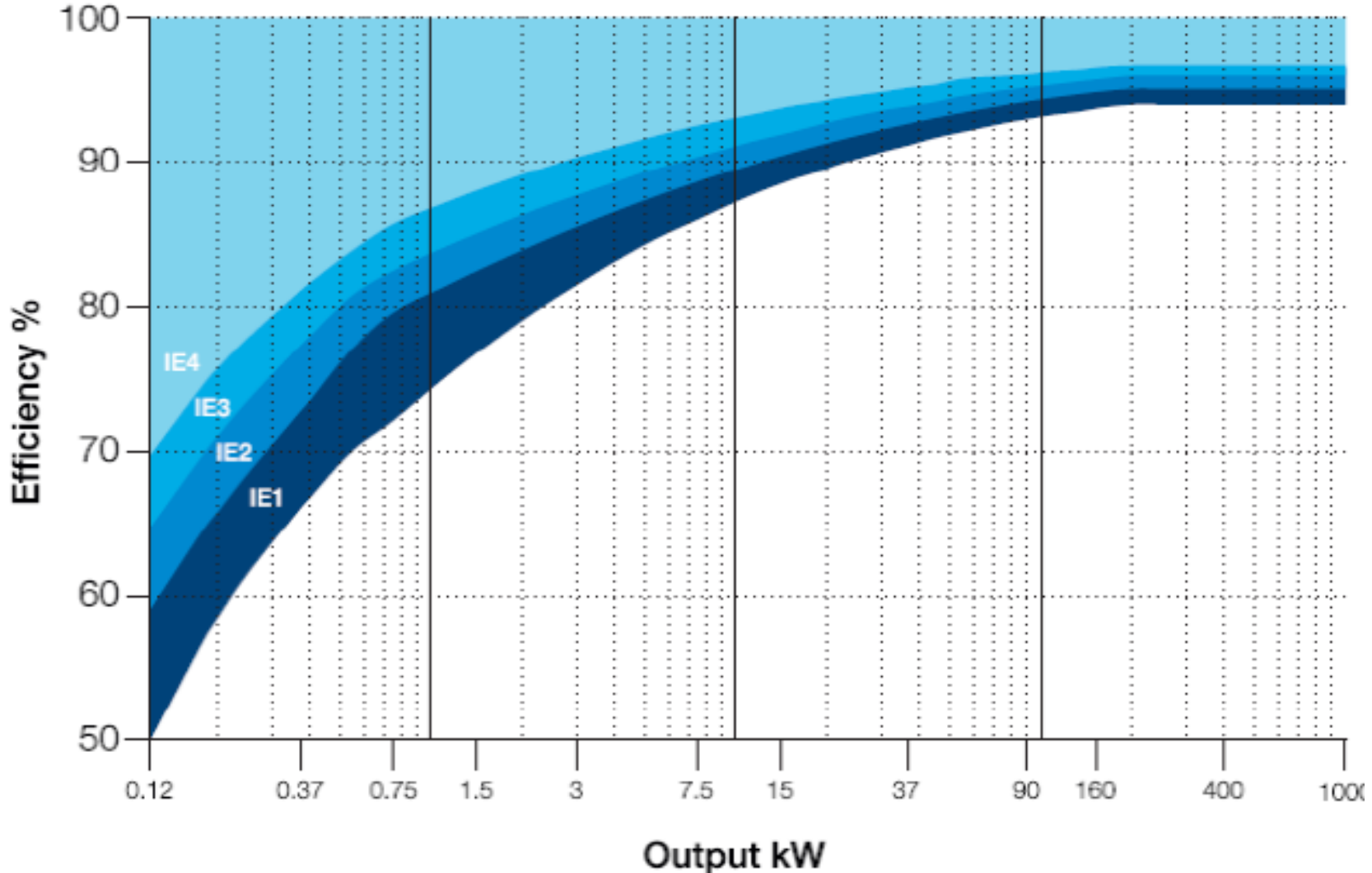
- Raised purchases for government to table 12-12 Premium Efficient [by executive order from president]

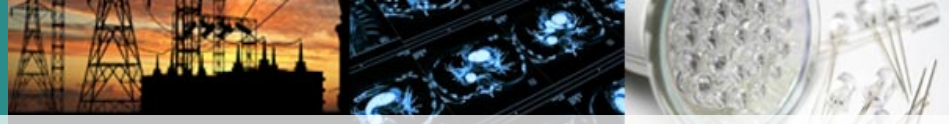
Energy Independence & Security Act of 2007

- Effective December 2010
- General Purpose 1-200 HP EAct motors to table 12-12 Premium Efficient
- Other 1-200 HP motors at table 12-11 Energy Efficient
- 201 – 500 HP motors at 12-11 Energy Efficient



Industrial Electric Motors: Opportunity for significant energy savings



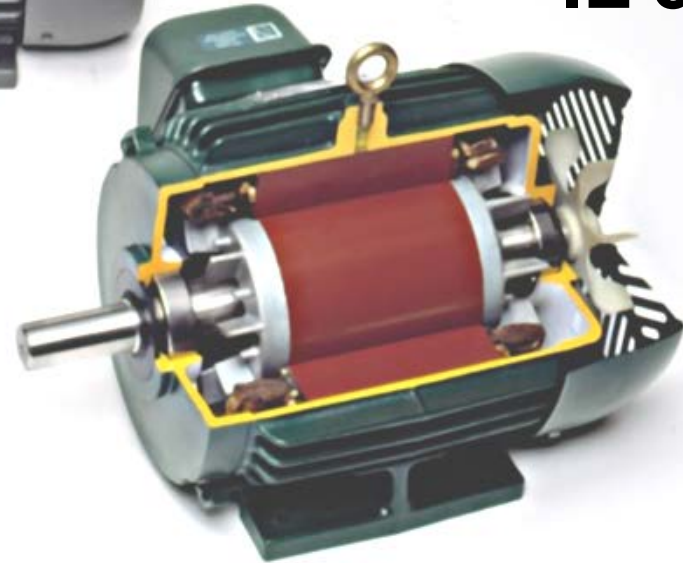


Progression of Active Material Required to Increase Efficiency

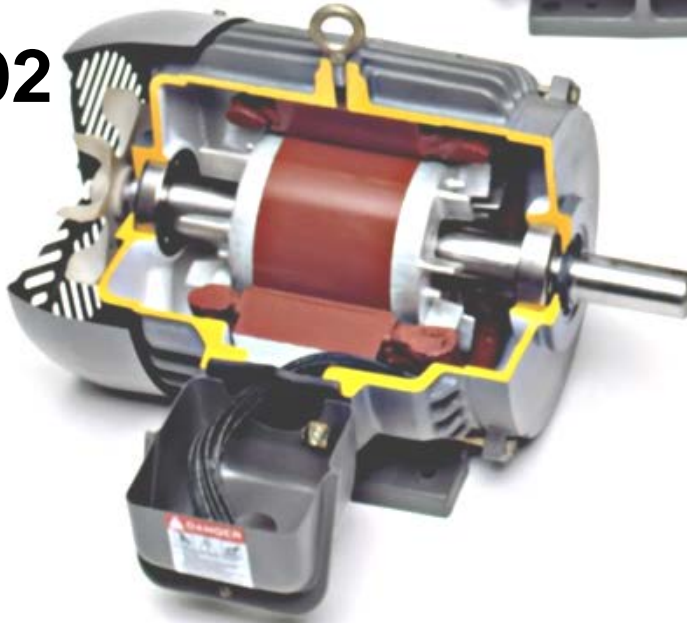
Lowest level

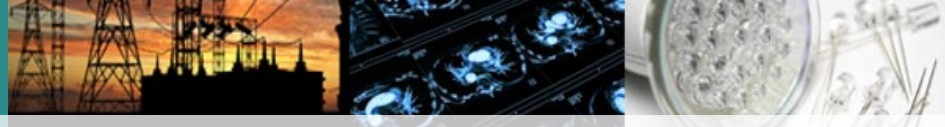


**NEMA Premium
IE 3**



**Epact 92
IE2**





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