


# Global Efficiency Standards & Requirements



## United States of America - Effective June 1, 2016



Engineering

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<b>Efficiency Standard</b>	NEMA MG-1
<b>Efficiency Regulations</b>	EISA 2007 + 2014 EISA Expansion Ruling (DOE Amendment 10 CFR Part 431)
<b>Minimum Efficiency Level</b>	Premium Efficient (with few exceptions)
<b>Applicable to</b> <i>NEMA MG-1, Table 12-12 (IEC 60034-30, Class IE3)</i>	1-500 hp (0.75 – 375 kW) <ul style="list-style-type: none"> <li>▪ All voltages ≤ 600V</li> <li>▪ 60 Hz (AC) line power</li> <li>▪ Rated continuous duty (S1)</li> <li>▪ Single-speed, induction motor</li> <li>▪ 2, 4, 6, 8 pole</li> <li>▪ Frames: NEMA 56 (IEC 80) and larger</li> <li>▪ Design: NEMA design A, B or C or IEC Design N or H</li> <li>▪ VFD rated motors that can also operate DOL</li> <li>▪ Includes: integral gearmotors and brakemotors, partial electric motors, TENV designs, U-frame, NEMA or IEC Flange Mount</li> </ul>
<b>Standard Efficiency Motors [Exemptions]</b>	<ul style="list-style-type: none"> <li>▪ Multi-speed motors</li> <li>▪ Single-phase motors</li> <li>▪ Motors labelled for intermittent or periodic duty (S2-S8)</li> <li>▪ Motors designed for VFD operation (that cannot be line-powered)</li> <li>▪ Submersible, and water-cooled motors</li> </ul>
<b>Required Efficiency Labelling</b>	 Efficiency level must appear on nameplate
<b>Future</b>	Additional rulings are expected to mandate higher efficiency requirements for motors in frame sizes NEMA 42-48-56 (IEC-63-71-80). Efficiency mandates already exists for small open drip-proof motors per DOE rule 10 CFR Part 31.