**Small Motor Update**

**2015 Energy Legislation**

**JANUARY 2013** – Announced Small motor regulation covering two digit frame sizes that includes 42, 48 and 56 Frame, 3 Phase and 1 Phase, ¼-3HP, ODP ONLY!

**EFFECTIVE MARCH 2015**

Exception, those motors that need to be certified by an independent third party, for these the effective date is March 9th, 2017.

**FEBRUARY 28TH, 2010** The DOE mandated efficiencies of General Purpose Small Motors.

**WHAT WE KNOW:**
- ¼ TO 3HP General Purpose
- ODP
- 60Hz (or 50/60 Hz)
- 3 Phase and 1 Phase CSCR (Cap Start, Cap Run) and CSIR (Cap Start, Induction Run)
- 2 Digit Frames – 42, 48, 56 and IEC equivalent.
- 2, 4, 6 Pole
- Service Factor per section 12.51 in MG 1-2011 (Maximum)
- Continuous Duty
- Resilient Mount - Stock Product
- Thermally Protected (March 9, 2017 if UL 2111 approved)

**EXCLUSIONS:**
- Definite or Special Purpose Motors (Some Examples – Non-Standard Flange, Multi-Speed, Air Over, Submersible, Partials, Brake Motors, Inverter Only, Double Shaft)
- Product built (or Imported) prior to March 2015
- Jet Pump motors 56J/56C - excluded by the higher S.F. and also by its definite purpose status

**ADDITIONAL DATA:**
- 208-230/460V motors only need to meet efficiency at 230/460V
- Special shafts are covered if motor meets General Purpose criteria above
- The Regulation: [http://www.ecfr.gov/cgi-bin/text-idx?SID=6414d716c3d20f5799aec0f3046c2657&node=10:3.0.1.4.19.24&rgn=div6](http://www.ecfr.gov/cgi-bin/text-idx?SID=6414d716c3d20f5799aec0f3046c2657&node=10:3.0.1.4.19.24&rgn=div6)
Fractional Motors

- Color coded leads for easy wiring
- Round lamination for better heat dissipation – warmer shell = cooler windings
- VFD capable
- Option for Aegis® inside
- All aluminum endshields – lower weight
- Visual identity along the full scope of rolled steel motors (48 to 254/6T)

Single-Phase

- New/more efficient cooling system
- Cables entry through frame – accepts NPT and BSP fittings
- Commercial HVAC motors with terminal block (spade terminals)
- Resilient base system with new base and rubber rings assembly for more robustness
- More space/clearance for wiring

High Starting Torque makes these motors ideal for a wide range of applications!!

Three-Phase

- New/more efficient cooling system
- Cables entry through frame – accepts NPT and BSP fittings
- Resilient base system with new base and rubber rings assembly for more robustness
- More space/clearance for wiring

*Turndown Ratio:

<table>
<thead>
<tr>
<th>Enclosure</th>
<th>Efficiency</th>
<th>Pole</th>
<th>&lt;1HP</th>
<th>≥1HP</th>
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</thead>
<tbody>
<tr>
<td>ODP</td>
<td>Std</td>
<td>2 &amp; 4</td>
<td>4:1</td>
<td>2:1</td>
</tr>
<tr>
<td>DOE 2015</td>
<td>2</td>
<td>5:1</td>
<td>3:1</td>
<td></td>
</tr>
<tr>
<td>DOE 2015</td>
<td>4</td>
<td>4:1</td>
<td>5:1</td>
<td></td>
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