



EU MEPS Explained

In this age of climate change and energy efficiency the EU have imposed strict new legislation governing the manufacture of industrial electric motors which will see an increase in the minimum permitted motor efficiency.

With as much as 70% of industry's energy consumption being directly attributed to electric motors, the UK government estimate that these changes will provide savings in the region of £200 million per year to UK businesses, as well as saving at least 1 million tonnes of CO2 each year.

What's changing?

The EU MEPS (European Minimum Energy Performance Standard) scheme sets mandatory minimum efficiency levels for electric motors introduced into the European market.

The scheme covers 2, 4 and 6 pole single speed, three-phase induction motors from 0.75kW to 375 kW, rated up to 1000 Volts and will come into effect in three stages from June 2011 onwards.

16 June 2011 - Minimum efficiency requirement at IE2 for all motors covered 0.75 – 375kW

1 January 2015 - Minimum efficiency requirement at IE3 for 7.5 – 375kW motors alone, or IE2 level if fitted with a variable speed drive (inverter)

1 January 2017 - Minimum efficiency requirement at IE3 for 0.75 – 375kW motors alone, or IE2 level if fitted with a variable speed drive (inverter)

Replacing the voluntary CEMEP scheme, the mandatory EU MEPS scheme defines the following efficiency classes according to the new IEC 60034-30 standard.

| | Old CEMEP Class | New EU MEPS Class |
|--------------------------|-----------------|-------------------|
| Super Premium Efficiency | – | IE4 |
| Premium Efficiency | – | IE3 |
| High Efficiency | EFF1 | IE2 |
| Standard Efficiency | EFF2 | IE1 |
| Low Efficiency | EFF3 | – |



What does it all mean?

- Motor manufacturers will not be permitted to manufacture or import into the EU standard electric motors covered by the legislation below IE2 (EFF1) class after 16 June 2011
- The current EFF1 and EFF2 efficiency classes will disappear
- EFF2 (IE1) rated motors will become obsolete
- Electric motors below IE2 (EFF1) class that are already in the supply chain can continue to be supplied after 16 June 2011
- Manufacturers will have to test motors to a new harmonized testing procedure which gives more accurate efficiency figures
- Motors will be subjected to independent testing to ensure compliance with the new levels
- The new efficiency class and motor efficiency will be clearly marked on the motor nameplate
- The increase in capital cost will be offset by the reduction in running cost over the lifecycle of the high efficiency motor.

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