

# DOE 2016 FAQ's

## LV Transformers

Siemens is launching new designs to meet the Department of Energy (DOE) 2016 efficiency standards before January 1, 2016.

**Note:** Enclosure sizes may be changing for many of the new DOE 2016 compliant Transformers – do not use existing TP1 mounting and/or sizing information for installation preparation. Although some may be the same – customers need to be aware of possible changes that will be reflected with new DOE data sheets supplied.

See FAQ's below:

### 1) What is DOE 2016 as related to LV Siemens Distribution Transformers?

- Department of Energy (DOE) 10 CFR 431 released efficiency standards which will take effect January 1, 2016. All Transformers covered by this document manufactured after December 31, 2015 must be compliant with the new standard.
- Any Products Manufactured to the TP1 efficiency standards, before January 1<sup>st</sup>, 2016, can still be sold and installed after January 1, 2016.
- New efficiency standards apply to Dry-Type Three-Phase Ventilated Transformers, including Harmonic Mitigating Transformers from 15kVA to 1000kVA and XES specialty transformers. The new DOE 2016 standards will surpass and supersede Siemens NEMA TP1 standards and Siemens NEMA Premium Standards. (see chart for values)
- The change in efficiency ratings may require changes to the basic construction of many configurations and may increase size/weight of each transformer. Most models will contain higher grade steels and different styles of cores. New cut sheets and mounting data will be available as well.

Comparison of 3-Phase LV Transformer Efficiency

kVA	TP1	NEMA Premium	DOE 2016
15	97.00%	97.90%	97.89%
30	97.50%	98.25%	98.23%
45	97.70%	98.39%	98.40%
75	98.00%	98.60%	98.60%
112.5	98.20%	98.74%	98.74%
150	98.30%	98.81%	98.83%
225	98.50%	98.95%	98.94%
300	98.60%	99.02%	99.02%
500	98.70%	99.09%	99.14%
750	98.80%	99.16%	99.23%
1000	98.90%	99.23%	99.28%

### 2) What series of LV Transformers are not affected by DOE 2016?

- Single Phase Transformers
- Encapsulated/Sealed or Fully Enclosed Transformers – Single Phase or 3-Phase
- Dual Purpose Auto Transformers
- Motor Drive Isolation Transformers
- Sentron Power Centers
- Buck-Boost Transformers

### 3) When can we start quoting DOE compliant Transformers?

- The MAP team has general guidelines for quoting DOE 2016 now, but all quotes are handled manually until COMPAS and SAP are updated with all the new information and pricing. This is in process.
- COMPAS should be available for quoting most common DOE 2016 transformers before October 1<sup>st</sup>, 2015 – Management will advise if available prior to October 1<sup>st</sup>. Many quotes with non-standard configurations will continue to be handled as special quotes. More details will be provided at a later date.
- Details of how COMPAS will function will be provided at a later date. For a short period of time both TP1 and DOE transformers will be available. Once inventories of TP1 series are depleted at our suppliers, we will no longer be able to quote/sell them.

### 4) How is the Part Number changing?

- The "TP1" in the part number logic is being replaced by "D16" for 3-phase Dry type Ventilated series.
- The "HM1" in the part number logic is changing to "HD1" for the Harmonic Mitigating series. The HD2 series and XES series are no longer available. Nema Premium series is also no longer available.

### 5) What is the expected cost increase for the new DOE 2016 compliant Transformers?

- This varies by manufacturer, but in general, costs will increase from 10-38% with some configurations higher.

### 6) What is the expected impact on delivery?

- Suppliers are gearing up to produce stocking quantities of Standard DOE 2016 designs by Oct-Nov 2015. As inventories of the old TP1 series are depleted, they will be stocking the new DOE 2016 series.
- From Oct-Dec 2015 we will expect to have some extended lead-times for old TP1 series transformers as production facilities will be changing over to the new DOE standards.
- DOE compliant products should have the same lead-times as TP1 series after the initial launch period. (November 2015 thru January 2016)

### 7) What other changes are being made at the same time as DOE 2016 launch?

- Type JST series of transformers are being phased out - simply order standard DOE 2016 series.
- The NEMA Premium Series is being phased out.

### 8) Collateral updates and communications planned for DOE 2016

- SpeedFax Section 8 will be revised and updated.
- LV Transformer Selection and Application Guide will be revised and updated.
- A DOE specific flier will be made available.
- Electronic copies of collateral and announcements will be made available on website shown below.

**Siemens Medium Voltage (MV) Distribution Transformers** are custom quoted for each application. These quotations will stipulate in the clarifications, the Department of Energy efficiencies being quoted (DOE 2010 or DOE 2016). If your project is expected to ship after January 1, 2016 please let Application Engineering know at time of quote.

For more information about Siemens medium voltage distribution transformers and the new DOE requirements, please download the document at the link below: (you may need to copy and paste it into your browser)

<http://www.energy.siemens.com/hq/pool/hq/power-transmission/Transformers/inserts/tr-insert-DOE-Regulation.pdf>

For additional info about Siemens Industry distribution transformers please visit our website at:

<http://w3.usa.siemens.com/powerdistribution/us/en/product-portfolio/transformers/Pages/transformers.aspx>

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