

# Specification of "LAMOOL" Transformer for Harmonic Load (K-13 Rating)

**1. Standard :** The transformer shall be designed, manufactured and tested in accordance with IEC – 60076 Standard.

**2. Rating :** The transformer shall be core type, dry-type, natural cooled and suitable for indoor installation.

a) Rated power	[KVA]	:	250.00
b) No. of Phase	[Ø]	:	3.00
c) Rated frequency	[Hz]	:	50.00
d) Rated primary voltage / current	[V / A]	:	380.00 / 379.84
e) Rated secondary voltage / current	[V / A]	:	380.00 / 379.84
f) Insulation class		:	H(180°C)
g) Vector group		:	Dyn-11
h) Neutral Size		:	Sized for twice the ampacity of the secondary phase conductor
i) Electrostatic shield between windings provides cleaner output voltage and helps to reduce spikes and transients.			



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**3. Service condition and installation :** The transformer shall be designed and constructed for installation and operation under the following conditions.

a) Altitude	:	Less than 1000 meters above sea level
b) Ambient temperature	:	40-50 °C (40 °C average on one day)
c) Type of cooling	:	ANAF
d) Minimum air-flow at full load	[m <sup>3</sup> / min.]	235

**4. Technical particulars :** (Technical particulars at rated voltage, current, frequency and refer temperature to 75 °C)

				Tolerance
No load current	[%]	:	2.63	+25%
No load losses	[W]	:	724	+10%
Load losses	[W]	:	2486	+10%
Total losses	[W]	:	3209	+10%
Impedance voltage	[%]	:	≥ 4.0	-
Efficiency at full load	[%]	:	98.73	Not less than 98.65%
Regulation at 100 % p.f.	[%]	:	0.92	+25%
Inrush Current (I <sub>pk</sub> )	[kA]	:	17.35	+/- 10%

**5. Insulation levels :**

The Insulation resistance between winding and earth tested by megger ohm meter not less than 1000V at ambient temperature 30 °C and relative humidity 80%

P-S Not less than 100 Meg. Ohm

P-E Not less than 100 Meg. Ohm

S-E Not less than 100 Meg. Ohm

**6. Temperature rise :**

a) Average winding temperature rise above maximum ambient temperature (45 °C) carrying maximum continuous rating. **Max. 125°C**