



K' Rated Transformers are designed to reduce the heating effect of harmonic currents produced by non-linear loads. A standard transformer is not designed for nonlinear load and will overheat and fail prematurely when connected to these loads. K- Factor is defined as a ratio between the additional losses due to harmonics and the eddy current losses at 50 Hz. It is used to evaluate transformers for non-linear loads. The ANSI/ IEEE C57. 110 has derived a system of weighing how much harmonic load currents a transformer can handle without exceeding its maximum temperature rise level. A K factor of 1 indicates no harmonics, while a K factor of 50 is the harshest harmonic environment possible. Typically a K Factor of 13 is sufficient for most applications. K factor must be determined to calculate the right size transformer that is needed.

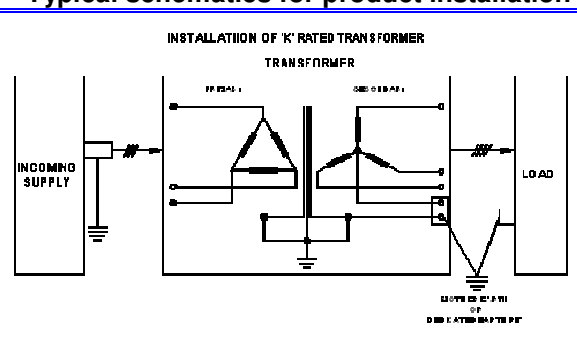
Technical Specification

KVA Rating	Upto 1000 KVA - Dry Type Available from K1 upto and including K20
Impedance	3 - 4 %
Input Voltage	415 Volts (other Voltage on Request)
Output Voltage	415 / 200 Volts (other Voltage on Request)
Input / Output configuration	Delta / Star or Zig - Zag
Construction	Dry Type, Double wound, Air Cooled, Common core, Varnish and vacuum impregnated
Winding	Copper
Neutral Conductor Rating	200 %
Frequency	50 / 60 Hz
Insulation Class / Level	H Class / 180 deg. C
Maximum temperature rise	125 deg. C
Enclosure type	M S Enclosure as per IP21
Enclosure Finish	Siemens Gray, RAL 7035 (Other colours available on request)
Flash Test / H.V Test	2500 Volts between winding to winding and to Earth
Ambient temperature	0 – 40 deg. C
Operating Humidity	0 to 90 % , non condensing
Reference Standard	UL-1561, IS: 11171

Special Features of K Rated Transformer

▪ Copper windings.
▪ Lower Output Impedance.
▪ Excellent transverse mode noise attenuation.
▪ Coil design is optimized for low eddy current loss and high harmonic current carrying capacity.
▪ Cores designed for reduced flux densities to compensate for harmonic voltage distortion.
▪ Double size neutral terminal
▪ Core of high quality electrical steel.
▪ Quiet operation.
▪ Ref. Standard UL-1561 , IS: 11171

Typical schematics for product installation



Applications

• Data centers, Call Centers, IPO	<p># Nonstandard KVA, Input Voltage and Out Voltage are also available on request.</p> <p># NEELKANTH reserves the right to amend design and specification without notice as Continuous efforts are made to Improve Products performance.</p> <p># Dimensional Detail available on request.</p>
• Induction Heaters / Inverters	
• UPS , VFD'S and Drives	
• HID Lightings	
• Hospital / Medical Centers , Research Labs	
• Corporate , Banking and Financial Institutions	

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Our Products and Services

Servo Controlled Voltage Stabilizer *** Linear Stabilisers *** Power Conditioners *** Ultra Isolation Transformer ***
'K' Rated Transformer *** Furnace Transformers *** Powerlux / Optilux Lighting Energy Savers ***
Real Time Power Factor Correction Systems *** Ground Fault Monitoring Systems *** Power Quality Audits and Analysis