

K-Factor Power Distribution Transformer

FEATURES



Power Distribution for Critical Loads

The ONYX K-Factor Power Distribution Transformer is a premium grade isolation transformer designed for powering critical loads.

Thermal Management Advantages: K-factor transformers have to manage continuous thermal stresses caused from harmonics and excessive neutral currents. ONYX K-factor transformers include an expanded steel core for a K-20 rating, dual layers of Nomex® thermal shielding between windings, embedded thermal monitoring, a 200% rated neutral bus and large copper flat bus connections for maximum conductivity and the elimination of hot spots.

Noise Suppression Technology: Many loads not only reflect harmonics but also line noise carried on the primary wave form. ONYX K-Factor transformers use noise suppression technology to limit line noise generated over a wide frequency range resulting in cleaner power.

Demonstrated Field Reliability: ONYX transformers have been installed in thousands of applications globally. We are committed to top quality and performance and encourage a close relationship with the factory to ensure customers are provided with the best possible solution.

About ONYX Power: ONYX Power is the largest and most modern transformer manufacturer on the west coast. Our 65,000 square foot facility in Santa Ana, California provides products to leading OEMs and end users who require a premium grade solution for critical applications. Our low lead times, high quality and competitive prices result in excellent customer value. We encourage customers to visit our facility and learn more about ONYX products.

Average Lead Time: less than 1-2 weeks

- ▶ Safely isolates distribution system from hazards of harmonics and power disturbances
- ▶ High efficiency option results in significant cost savings (meets TP-1 / Energy Star® standards)
- ▶ Electrostatic shield between windings attenuates common mode and normal mode noise
- ▶ 200% rated neutral bus manages harmonics and non-linear loads without risk of excessive heating
- ▶ K-20 rating to accommodate even the worst non-linear loads without the risk of heat-build-up
- ▶ Large copper flat bus bar connections accommodate overloads without the risk of spot heating
- ▶ Dual Nomex® barrier and vacuum impregnated varnish coating ensures 25 year+ life
- ▶ Single or Dual Output (dual zig-zag) models
- ▶ Optional integrated distribution panel and current monitoring
- ▶ 10 year warranty



K-Factor Power Distribution Transformer

TECHNICAL SPECIFICATIONS

Engineering Description

Three Phase K-Factor Delta Wye Isolation Transformer

Input voltage(s)	208, 220, 380, 400, 480, 600 VAC
Output voltage(s)	208, 220, 380, 400, 480, 600 VAC (Y)
K-Factor Rating	K-20
Overload capacity	500% for 1 cycle 200% for 30 seconds
Dielectric strength	2,500 VAC minimum
Frequency	47 - 53Hz for 50Hz models and 57 - 63Hz for 60Hz models
Impedance	3 - 5% typical
Energy Efficiency	> 97.5% typical (high efficiency models meet or exceeds Energy Star, NEMA TP-1 and CSA C802)
Taps	2.5% and 5% above nominal V / 2.5%, 5%, 7.5% and 10% below nominal V
Recommended input voltage range	+10% of nominal rated voltage
Load regulation	3.5% or less from no load to full load at unity power factor
Harmonic distortion	1% maximum
Insulation resistance	100M Ohms minimum from windings to core
Electro-magnetic interference	0.1 gauss maximum measured at 36 inches
Audible noise	< 50dB measured at 3 feet typical
Cabinet Type (no cabinet optional)	NEMA-1 steel construction / powder coat finish (NEMA-3R optional)
Operating temperature	0° C to 55° C
Storage temperature	-40° C to 85° C
Operating altitude	15,000 feet maximum
Operating humidity	95% relative (non-condensing)
Safety Standards	UL 1561, UL 1449, cUL listed

Standard Inventory Model Description (other voltages and frequencies available)

Power (kVA)	Input Voltage (VAC)	Output Voltage (VAC)	Dimensions (H"xW"xD")	Weight (lbs)	Model Number
15	480	480	28x23x18	380	KG15-4848-60
15	480	208	28x23x18	400	KG15-4828-60
30	480	480	34x28x22	460	KG30-4848-60
30	480	208	34x28x22	490	KG30-4828-60
50	480	480	34x28x22	650	KG50-4848-60
50	480	208	34x28x22	710	KG50-4828-60
75	480	208	34x28x22	870	KG75-4828-60
100	480	208	44x32x22	920	KG100-4828-60
125	480	208	44x32x22	1,100	KG125-4828-60
150	480	208	46x32x22	1,200	KG150-4828-60
200	480	208	46x32x22	1,600	KG200-4828-60
225	480	208	46x32x22	1,720	KG225-4828-60
300	480	208	60x40x32	1,950	KG300-4828-60
400	480	208	60x40x32	3,200	KG400-4828-60
500	480	208	60x40x32	4,140	KG500-4828-60



KGrid 100 • 3/05

