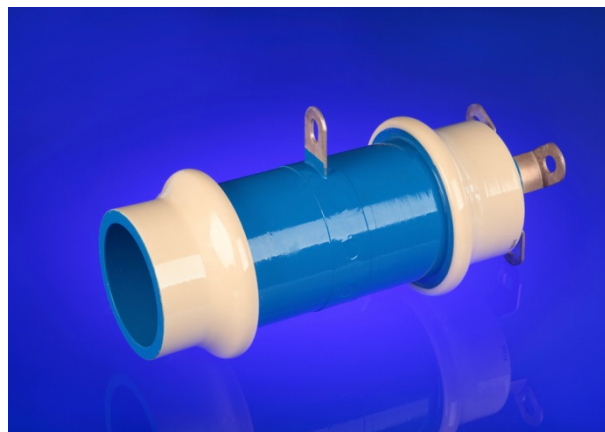


RF Power Capacitors Class1 20-35kV Hi-Load : Stand-Off Mounting

Morgan Advanced Materials is a world leader in the design and manufacture of complex electronic ceramic components and assemblies used in a wide range of applications and cutting edge technologies. Morgan's Ruabon Division specialises in the development and production of dielectric and ferroelectric materials and components. This range of high voltage RF discs capacitors is fabricated from very low loss CLASS 1 ceramic dielectric materials which permit them to carry very high electrical loads over a wide frequency range.



Applications include :

- Radio Broadcast Transmitters
- Induction and Dielectric Heating Equipment
- HF Filter, By-Pass & Coupling Circuits
- High Power Matching Tuned Circuits
- Antenna Circuits
- Industrial Applications
- High Power matching networks –Plasma Generators
- High quality medical imaging systems (MRI)

Features :

- Low loss Class 1 ceramic dielectric materials with noble metal electrodes resulting in low self heating.
- High Voltage / High Reactive Power Ratings
- Very low NPO capacitance-temperature characteristics available that result in correspondingly low tuned frequency drift.
- Low Inductance construction permitting higher frequency use.
- Low magnetic susceptibility

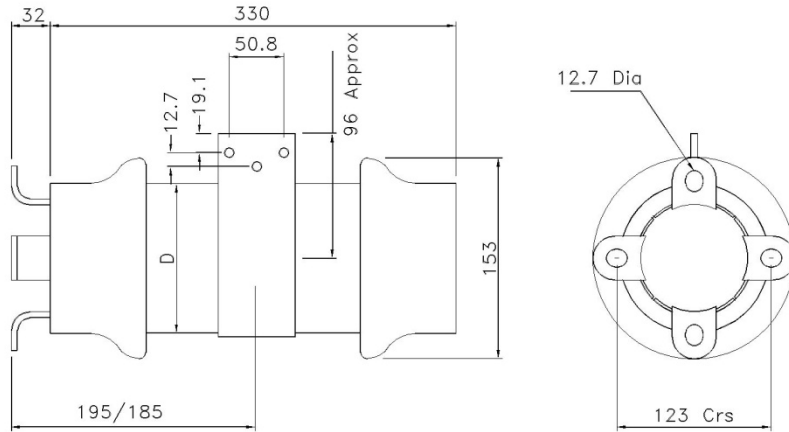
Material Characteristics

Dielectric Constant @ 20°C / 1MHz		15	36	77	90	190
Temperature Coefficient of Capacitance		ppm/°C	+100 ± 60	0± 30	0± 30	-750±80 -1300±120
Tan δ@1MHz (Cap ≤ 1000 pF)		x 10 ⁻⁴	≤5	≤5	≤5	≤5
Tan δ@1kHz (Cap > 1000 pF)		x 10 ⁻⁴	≤10	≤10	≤10	≤10
Dielectric Strength		kVmm ⁻¹ dc	22	20	15	10
Volume Resistivity		Ωm	10 ¹³	10 ¹³	10 ¹³	10 ¹³

Electrical Specification

Capacitance Range		600 – 12000pF (see table)
Capacitance Tolerance		±20% ±10% Consult factory for other tolerances
Rated RF Voltage		20-35 kVpk (see table)
Test Voltage (50Hz)		√2 x Rated Voltage / 60sec
RF Voltage / Current kVAr Load v Frequency		See RF rating curves (ref 30°C max ambient temperature)
Operating Temperature Range		-25°C +95°C
Maximum Relative Humidity		75%

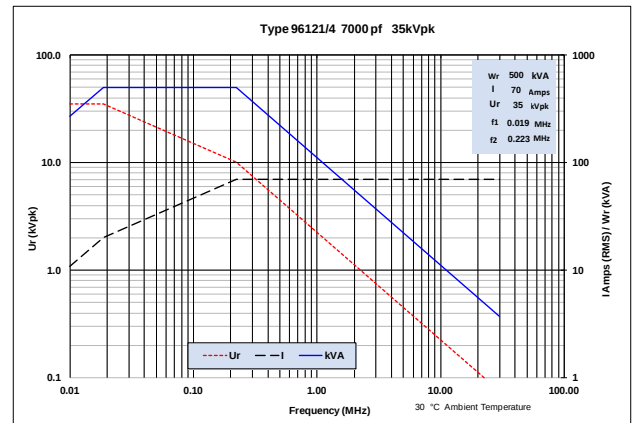
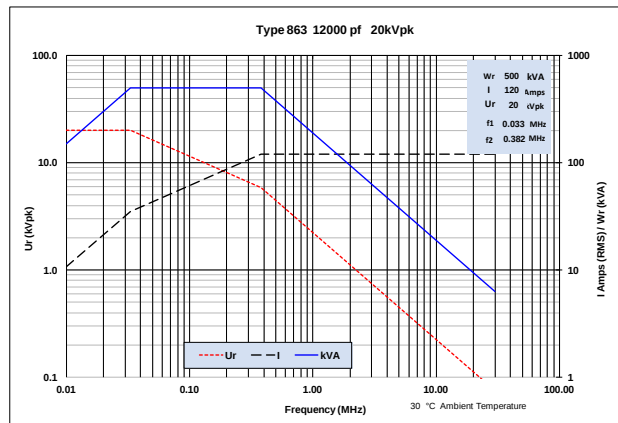
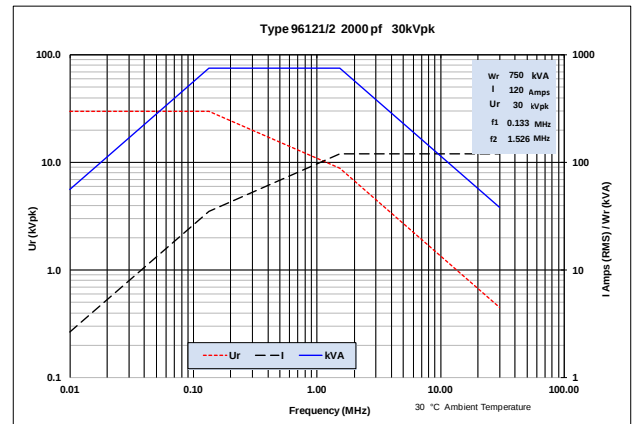
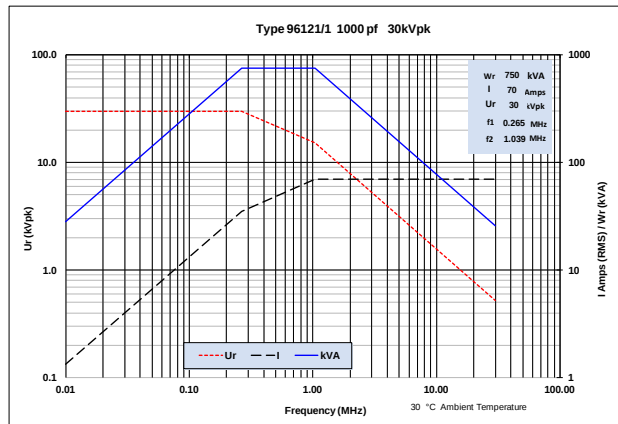
Outline Drawing 20-35kV Hi-Load : Stand-Off Mounting



Metalwork varies for styles A,B,C, D &E.
Consult sales office for specific details.
Diagram shows Type863-Style A

Electrical Characteristics

Type No	Cap Value pF	TCC ppm/°C	Rated (ACpk + DC) kVpk	Rated AC kVpk	Test 50 Hz kVrms	Max POWER Rating (kVAr)	Max Current Rating (A rms)	Style
863	12000	-1300	20	20	20	500	120	A
96115	1200	+100	25	25	25	750	120	B
96117	1000	+100	25	25	25	750	120	C
96121/1	1000	+100	30	30	30	750	70	D
96121/2	2000	0	30	30	30	750	70	D
96121/3	600	+100	30	30	30	750	70	D
96121/4	7000	-1300	35	35	35	500	70	D
96123/1	1000	+100	30	30	30	750	70	E



The above RF load conditions are based on the maximum body temperature rise of 45°C from an ambient temperature of 30°C.

Email technical / sales related enquiries to
ruabon.sales@morganplc.com

Please view our website :
www.morganelectroceramics.com

Links:

* Power Rating & Operating Conditions

Disclaimer: Please note that all product, product specifications and data detailed in this brochure are subject to change without notice to improve reliability, function, design or otherwise. Morgan Advanced Materials Ltd and its affiliates does not assume any responsibility for the correctness of this information nor for damages consequent to its use. Statements regarding the suitability of products for certain types of applications are based on knowledge of typical requirements that are often placed on Morgan products in generic applications.

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