


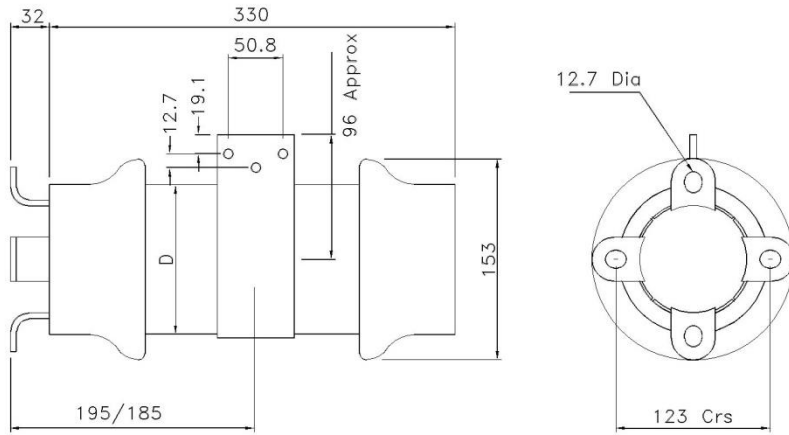
RF Power Capacitors Class1 20-35kV Hi-Load : Stand-Off Mounting

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|--|--|
| <p>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.</p> |  |
| <p>Applications include :</p> <ul style="list-style-type: none"> • 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) | <p>Features :</p> <ul style="list-style-type: none"> • 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 | ≤5 |
| Tan δ@1kHz (Cap > 1000 pF) | x 10 ⁻⁴ | ≤10 | ≤10 | ≤10 | ≤10 | ≤10 |
| Dielectric Strength | kVmm ⁻¹ dc | 22 | 20 | 15 | 10 | 10 |
| Volume Resistivity | Ωm | 10 ¹³ | 10 ¹³ | 10 ¹³ | 10 ¹³ | 10 ¹³ |

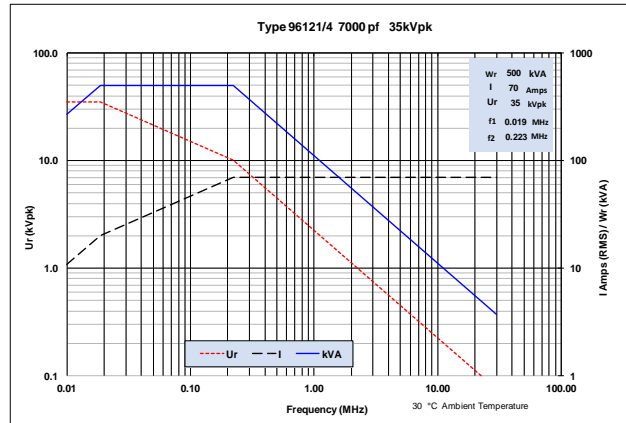
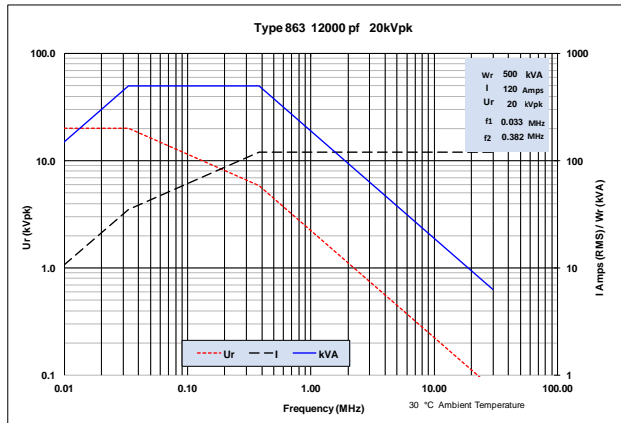
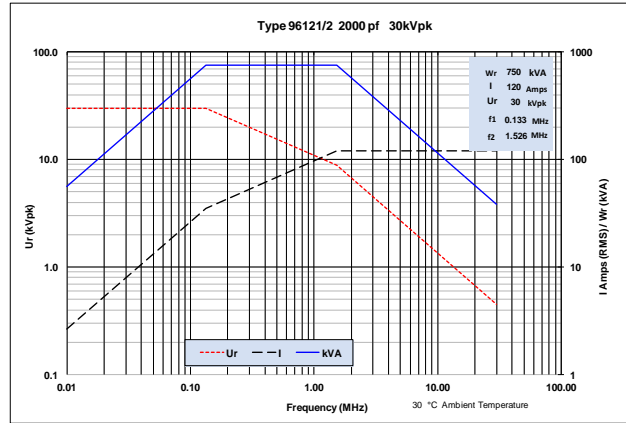
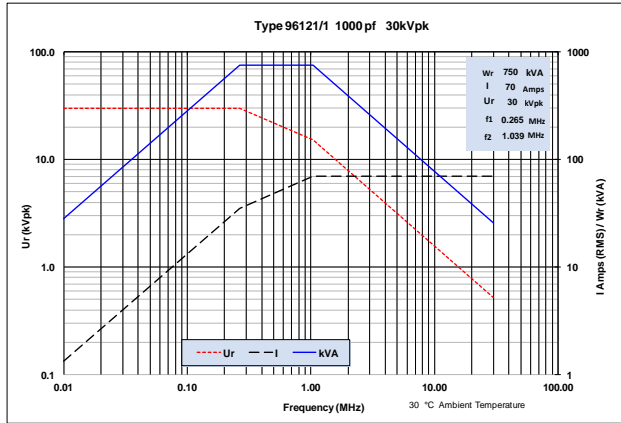
| Electrical Specification | |
|---|---|
| Capacitance Range | 600 – 12000pF (see table) |
| Capacitance Tolerance | ±20% ±10% Consult factory for other tolerances |
| Rated RF Voltage | 20-35 kVpk (see table) |
| Test Voltage (50Hz) | √2 x Rated Voltage / 60sec |
| RF Voltage / Current kVAr Load v Frequency | 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.

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Please view our website :
www.morganelectroceramics.com

Links:

* Power Rating & Operating Conditions

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