HIGH VOLTAGE/POWER CAPACITORS
3.5kV to 42kV, 3kV to 20kVDC FEED-THRU TYPE

DCF & DAF Series

FEATURES

- Small size, large power handling capability
- Linear and reversible temperature characteristics
- Excellent “Q” and I.R. performance over a wide frequency range
- Superior humidity and extended life performance

APPLICATIONS

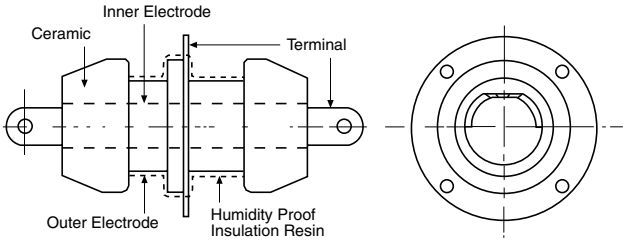
- Antenna coupling
- Bypasses for medical and industrial applications
- Transmission line couplers

STANDARD VALUES

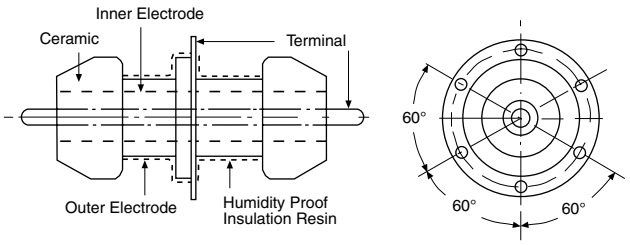
Part Number	Note	Rated Volt. (kVp)	Nom. Cap. (pF)	Rated Power (kVA)	Rated Reactive Current (A) rms	Dimensions: mm		NOTES
						D + 10%	L ± 2.03	
DAF20UJ102MHF3K	1	3	1000	5.0	5.6	16.6	60	1 : Feed-thru current 6A 2 : Feed-thru current 20A 3 : Feed-thru current 50A 4 : Feed-thru current 70A For low frequency current below 20kHz, the rated reactive power may be increased 25% if the ambient temperature of 30°C and the upper temperature of 75°C are not exceeded.
DCF45UJ102MHF8K	2	8	1000	12	8.7	30	90	
DCF65UJ102MHF10K	3	10	1000	40	15.9	45	155.5	
DCF80UJ102MHF20K	4	20	1000	50	17.7	55	160	

CONSTRUCTION

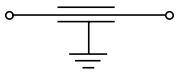
DAF



DCF



Circuit



SPECIFICATIONS

Capacitance
The capacitance shall remain within the specified tolerance when measured at 20°C and at 1MHz ± 100kHz with not more than 5Vrms.

Q
The values of Q shall be 2000 or more when measured under the same conditions as the capacitance.

Insulation Resistance
The insulation resistance shall be 10,000M ohms or more when 1kVDC voltage is applied between terminals for 1 min. ± 5 sec.

Withstanding Voltage
There shall be no damage when the test voltage is applied for 3 min. ± 5 sec. between terminals at 20°C.

Temperature Coefficient
The changes in capacitance shall be within the ranges shown below over a temperature range of –10°C to +85°C, with the value at 20°C being the reference.
Measurement conditions are same as the capacitance.

Char.	Temp. Coeff.
UJ	(–750 ± 120) ppm/°C

Power Capacity
The temperature rise at the terminals shall be 50°C when measured at a frequency of 1MHz with the specified rated power capacity applied and after the temperature at each section has stabilized.

Operating Temperature Range
–10 ~ +85°C

NOTICE
Avoid subjecting the capacitors to undue shock such as dropping, etc., as it may cause cracking to the ceramic.

Avoid carrying the capacitors mounted because unnecessary vibration or shocks can lead to degradation in terminal strength and cracking of the ceramic.

When subjecting the capacitors to forced-air cooling, avoid cooling locally; this may lead to uneven temperature distribution in the capacitors, resulting in ruptured capacitors.

Protect the capacitor surface from waterdrops or dust which may cause corona discharge or flashover.

PRECAUTION
When using the capacitors, strictly observe the rated voltage, current and power. Continued overload use may result in the following failures:

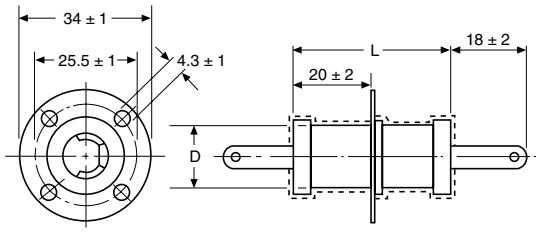
Ceramic cracking

Flashover takes place over the surface, leading to a fire hazard.

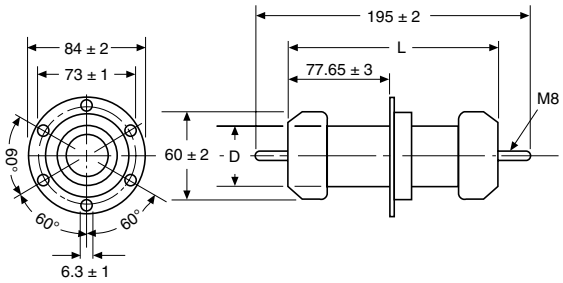
The ceramic may produce abnormal heat (200°C or more) if the ceramic incurs feedthrough damage with resultant overcurrent flowing through.

DIMENSIONS: mm

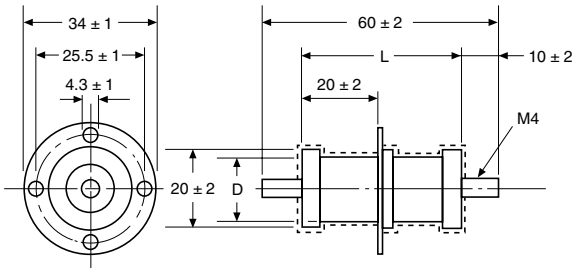
DAF20 Type



DCF65 Type



DCF20 Type



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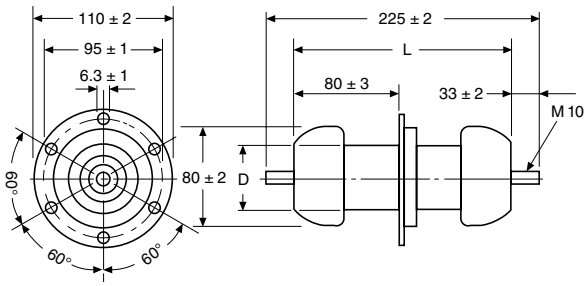

DCF45 Type