A KYOCERA GROUP COMPANY

AVX
Discharge Capacitors

In 1979, Thomson Passive Components (acquired by the AVX Corporation in 1998) developed the **CONTROLLED SELF-HEALING technology** for medium power dry filtering capacitors.

In 1988, AVX started the development of **CONTROLLED SELF-HEALING technology** for impregnated DC filtering capacitors (TRAFIM series). This product range is very popular and has been licensed by other manufacturers.

Improvements of film technology and its metallization the last 10 years have led to a significant increase of the energy density available in AVX's TRAFIM series. In fact, it is now considered one of the most compact capacitors on the market.

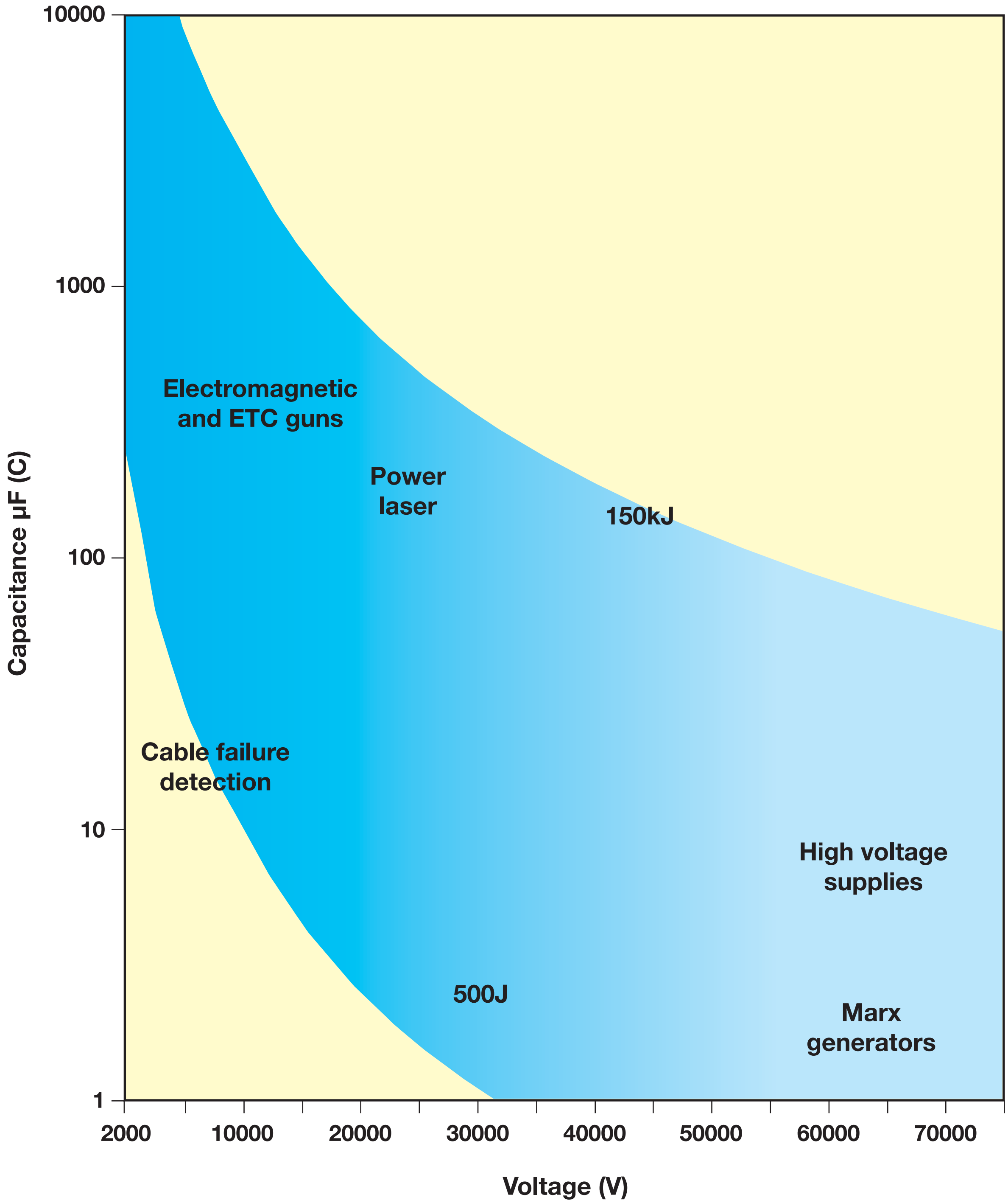
Today AVX offers impregnated capacitors based on the same controlled self-healing technology, which are ideal for discharge applications. The voltages of these DISFIM capacitors range from 2kV to 75kV. The maximum available energy per can is 150kJ.

In the past, discharge capacitors have used foil electrodes. Any defect of weak point in the film led to a catastrophic failure of the capacitor involving a short-circuit with even a risk of explosion.

Now, with the controlled self-healing technology, the capacitance of the DISFIM is divided into several million elementary capacitances. The weak points in the dielectric are insulated and the capacitor continues to work without any short-circuit or risk of explosion. DISFIM capacitors may represent more than 10,000 square meters. Only some square millimeters of active surface are lost for every self-healing action. Over the life of the capacitor, the capacitance gradually decreases. The capacitor is usually designed to lose less than 5% of its initial capacitance during its whole lifetime.

DISFIM Products

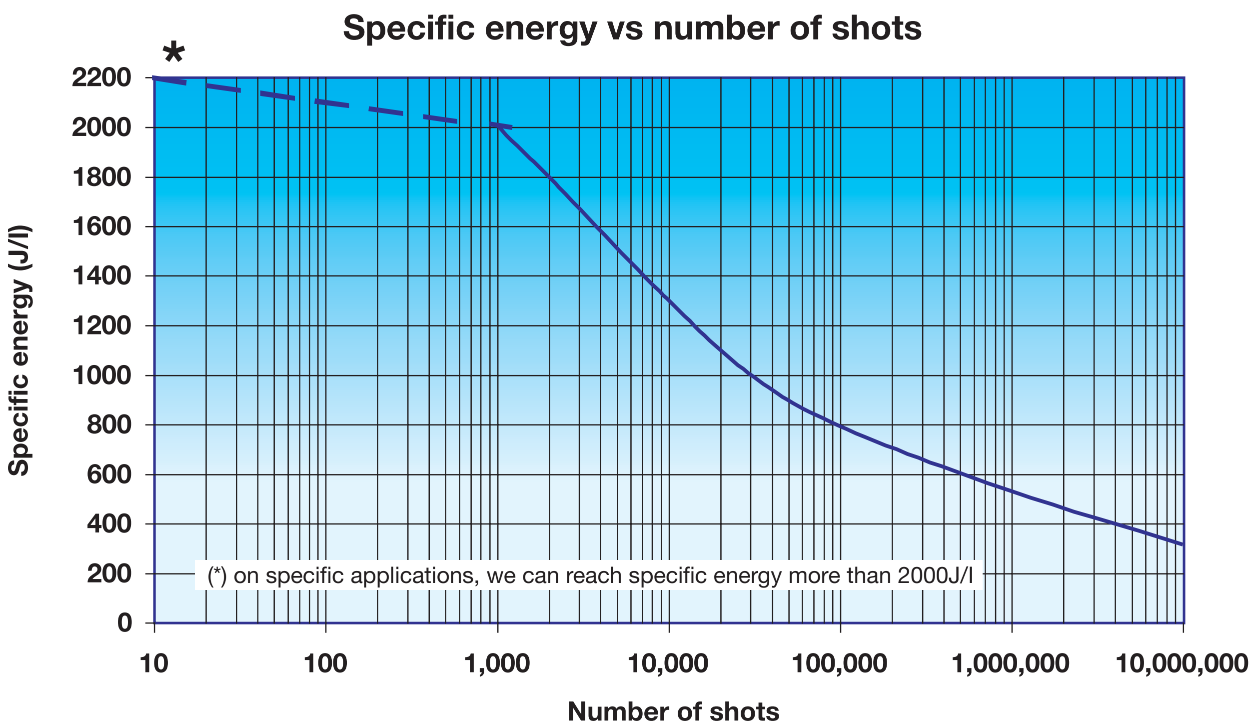
DISFIM RANGE

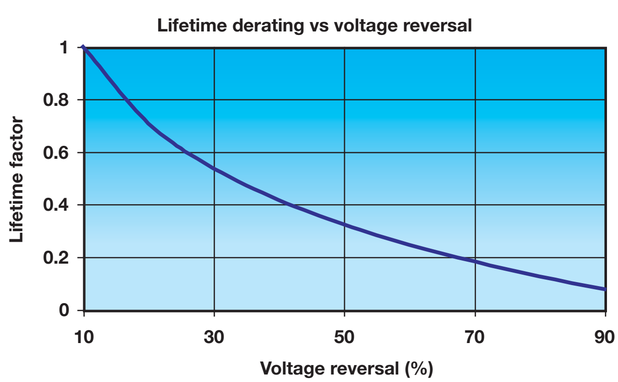


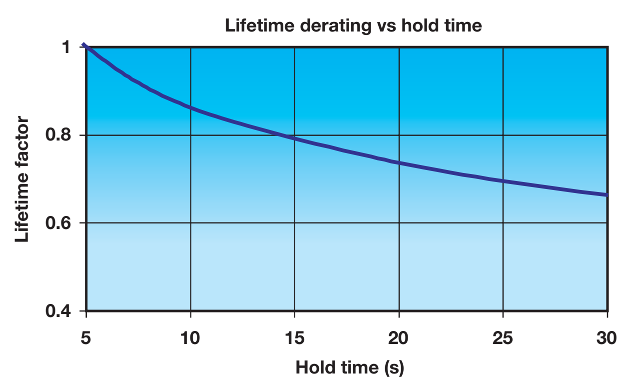
Tolerance on capacitance: ±10%, ±5%, ±2%
Stray inductance: 50nH to 500nH

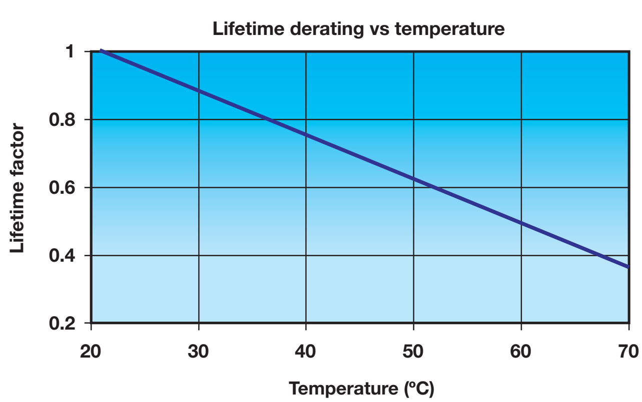
DISFIM Products

SPECIFIC ENERGY CALCULATION









DISFIM Products

This questionnaire lists the information we require to prepare an offer according to your exact requirements.

Name: ______________________________________ Function: ______________________________________
Company: ____________________________________ Telephone: ____________________________________
Address: _____________________________________ Fax: ____
____ Email: _______________________________________

Expected dimensions:
Width (mm):
Length (mm):
Height (mm):

Expected stray inductance:
nH

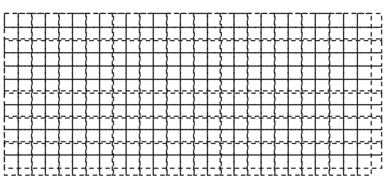
Number of terminals:

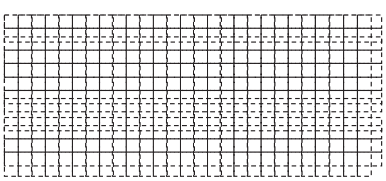
Capacitor operating position:

upright horizontal tilted upside down

Environment:
(moisture, vibrations...)

Waveforms (U/I)





Capacitance/Tolerance µF %

Charging Voltage V

Capacitance Time s

Hold Time s

		Normal Conditions	Faulty Conditions
Expected lifetime	*hours*		
or	*shots*		
Peak current	*(A)*		

Aperiodic discharge

Pulse duration (5% I peak)	*(µs)*		
Time to I peak	(µs)		

Oscillatory discharge

Reversal voltage	*(%)*		
Ringing frequency	*(Hz)*		

Repetition Rate

Single shots *(shot/min hour day)*	

Burst

Impulses per burst		
Impulse rep. Rate	*(Hz)*	
Burst rep. Rate *(burst/s min hour)*		

Operating temperature from __________ to __________ °C

Storage temperature from __________ to __________ °C

Cooling conditions
Natural convection
Force air m/s
Oil

Remarks:

AMERICAS

AVX Myrtle Beach, SC
Corporate Offices
Tel: 843-448-9411
FAX: 843-448-1943

AVX Northwest, WA
Tel: 360-699-8746
FAX: 360-699-8751

AVX North Central, IN
Tel: 317-848-7153
FAX: 317-844-9314

AVX Midwest, MN
Tel: 952-974-9155
FAX: 952-974-9179

AVX Mid/Pacific, CA
Tel: 510-661-4100
FAX: 510-661-4101

AVX Southwest, AZ
Tel: 602-678-0384
FAX: 602-678-0385

AVX South Central, TX
Tel: 972-669-1223
FAX: 972-669-2090

AVX Southeast, GA
Tel: 404-608-8151
FAX: 770-972-0766

AVX Canada
Tel: 905-238-3151
FAX: 905-238-0319

AVX South America
Tel: ++55-11-2193-7200
FAX: ++55-11-2193-7210

EUROPE

AVX Limited, England
European Headquarters
Tel: ++44 (0) 1252-770000
FAX: ++44 (0) 1252-770001

AVX/ELCO, England
Tel: ++44 (0) 1638-675000
FAX: ++44 (0) 1638-675002

AVX S.A., France
Tel: ++33 (1) 69-18-46-00
FAX: ++33 (1) 69-28-73-87

AVX GmbH, Germany
Tel: ++49 (0) 8131-9004-0
FAX: ++49 (0) 8131-9004-44

AVX srl, Italy
Tel: ++390 (0)2 614-571
FAX: ++390 (0)2 614-2576

AVX Czech Republic
Tel: ++420 465-358-111
FAX: ++420 465-323-010

ASIA-PACIFIC

AVX/Kyocera, Singapore
Asia-Pacific Headquarters
Tel: (65) 6286-7555
FAX: (65) 6488-9880

AVX/Kyocera, Hong Kong
Tel: (852) 2-363-3303
FAX: (852) 2-765-8185

AVX/Kyocera, Korea
Tel: (82) 2-785-6504
FAX: (82) 2-784-5411

AVX/Kyocera, Taiwan
Tel: (886) 2-2698-8778
FAX: (886) 2-2698-8777

AVX/Kyocera, Malaysia
Tel: (60) 4-228-1190
FAX: (60) 4-228-1196

Elco, Japan
Tel: 045-943-2906/7
FAX: 045-943-2910

Kyocera, Japan - AVX
Tel: (81) 75-604-3426
FAX: (81) 75-604-3425

Kyocera, Japan - KDP
Tel: (81) 75-604-3424
FAX: (81) 75-604-3425

AVX/Kyocera, Shanghai, China
Tel: 86-21 6341 0300
FAX: 86-21 6341 0330

AVX/Kyocera, Beijing, China
Tel: 86-10 8458 3385
Fax: 86-10 8458 3382

ASIA-KED

KED, Hong Kong
Tel: (852) 2305 1080
FAX: (852) 2305 1405

KED, Shanghai
Tel: (86) 21 6859 9898
FAX: (86) 21 5887 2542

KED, Beijing
Tel: (86) 10 5869 4655
FAX: (86) 10 5869 4677

KED, South Korea
Tel: (82) 2 783 3288
FAX: (82) 2 783 3207

KED, Taiwan
Tel: (886) 2 2950 0268
FAX: (886) 2 2950 0520

KED, Singapore
Tel: (65) 6255 3122
FAX: (65) 6255 5092

Contact:

A KYOCERA GROUP COMPANY

http://www.avx.com

S-DC2.5M1005-N