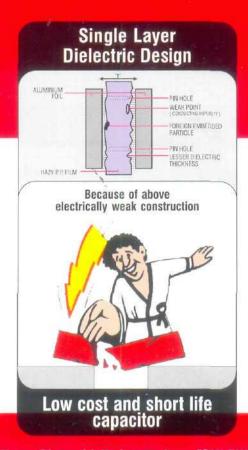
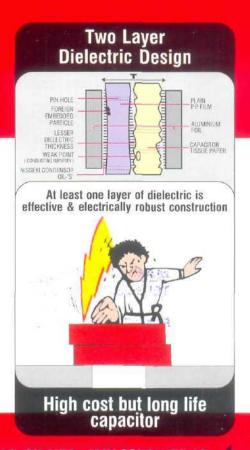
Must for electrical engineers/power capacitor users:



TWO LAYERS OF DIELECTRIC?





Check the Name Plate of failed capacitor - MAY FIND TYPE AS "SH-MPP", MAY CONCLUDE AS NOT SUITABLE FOR OUR VOLTAGE SUPPLY SYSTEM AND AMBIENT TEMPERATURE.

READ





HOW TO SELECT A GOOD CAPACITOR ON TECHNICAL GROUND?

While purchasing any power capacitor one should ask for the technical details such as the type of design, quality and quantity of raw materials used. Here is a questionnaire which will help you choose a good capacitor.

QUESTIONNAIRE FOR POWER CAPACITORS

- 1. The Type of design ?
 - Non Self healing type. (Suitable for adverse conditions prevailing in our country.)
 - Self healing type (Short lived and not suitable for adverse conditions prevailing in our country.)
 - Metallised Polypropylene (M.P.P.)
 (Some manufacturers may mislead by terming such a design as double dielectric, heavy edge, heavy duty, etc.)
 - Double Metallised Paper
 (Some manufacturers may mislead by terming such a design as MDXL, Soggy Foil, etc.)
- Thickness of Dielectric Medium ? (Greater the thickness longer the working life.)
- 3. Make of the following raw materials?
 - Aluminium foil
 - Polypropylene film
 - Impregnating oil

- 4. Name and Electrical characteristics of impregnating oil ?
 - (Simply stating non PCB, non hazardous is not sufficient. Must specify the name of the oil).
- 5. Thickness of conducting Plate?
 - (Whether actual aluminium foil or extremely thin aluminium metallising on Polypropylene films or Double metallising on Capacitor tissue paper.)
- Unit Protection ?
 (Whether internal element fuses are provided or not)
- Kind of Guarantee given ?
 (Whether manufacturing defect warranty or performance based meaningful guarantee for 24 months.)
- Name of actual manufacturer?

 (Many branded capacitors are actually manufactured by small factories. Read the following to understand the real truth)

Many branded capacitors available in the market are actually capacitors manufactured by small manufacturers and marketed by big brand names.

Deduct the following from your purchase price to find out the amount the actual manufacturer gets and imagine the quantity or quality of raw materials he can provide in his capacitor from that amount:

- Deduct 5 to 10% dealer's profit margin.
- Deduct Local Sales tax, Octroi, Turn over tax and Surcharge.
- Deduct 5% Packing, forwarding, coolie, etc.
- Deduct 25 to 30% Profit margin of big brand name. (as they provide sales force, dealer network, logo, etc.)
- Deduct 16% Excise Duty.
- Deduct 1 to 2% postage, banking charges, document costs, etc.
- Deduct unforseen expenses.
- Deduct 15 to 20% rejection. (Since many learned Engineers have started verifying the performance of capacitors by measuring capacitor current with help of tong tester/ammeter periodically)

Read

Now from the amount remaining what Jewels and Gems will the actual manufacturer provide?



MARK NEW NOS.

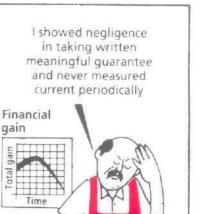
TEL.: 2501 3661 / 2 / 3 6575 4902 / 3 / 4



FAX: 2501 0758/3660

YOUR FATE IS IN YOUR HANDS!





NOW CHOICE IS YOURS
IF YOU REALLY WANT TO BECOME THE HAPPIEST PERSON
THEN KINDLY FOLLOW THE BELOW MESSAGES.

- Ask for a performance based meaningful guarantee :
- "No reduction in output (or no fall in current) for 24 months. If any reduction is found capacitor should be replaced free of charge and the same guarantee should be given from the date of replacement or you can insist for a refund of your hard earned money."
- "Make a routine habit to measure capacitor current with the help of ammeter/tongtester every month and maintain records. If any reduction in current/failure of capacitors is noticed, please protest to the supplier/manufacturer immediately. This may help you to protect your investment in power capacitors."

Power capacitor is a power saving device, hence is very important for our nation's economy. If you adhere to the above messages, we are sure that you will make power capacitor manufacturer more responsible towards quality. By doing so you will be doing a good deed for our Nation.

Check the Name Plate of failed capacitor -MAY FIND TYPE AS "SH-MPP", MAY CONCLUDE AS NOT SUITABLE FOR OUR VOLTAGE SUPPLY SYSTEM AND AMBIENT TEMPERATURE.

READ

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L. T. POWER CAPACITORS SINGLE LAYER DIELECTRIC DESIGN TWO LAYER DIELECTRIC DESIGN (Unpredictable and short working life design) (Dependable and long working life design) Self Healing Non Self-healing M.P.P. Double All P. P. Two Layer FILM Metallised (Single Layer P.P.) FILM PAPER Paper FOIL FOIL 0.01 to 0.015

Design	M. P. P	Double Metallised Paper	Single Layer P. P. (All P.P.)	Two Layer P. P.	FILM+PAPER+ FOIL
T '	5 to 6 micron	5 to 6 micron	10.2 to 14 micron	(6.1+6.1) micron	(8+8) micron
Oil Thickness	NIL	0.5 micron	0.5 micron	1 micron	1 micron
Effective Thickness	5 to 6 micron	5.5 to 6.5 micron	10.7 to 14.5 micron	13.2 micron	17 micron
Dielectric Material Consumption	8% to 13%	10% to 15%	40% to 73%	60%	100%

Aluminium Foil

• P. P. Film = Polypropylene Film

Micron thick

metallised layer

• C.T. P. = Capacitor Tissue Paper

 $C\alpha \frac{A}{T}$

From above you will notice that low cost power capacitor manufacturers go for lesser T (dielectric thickness), sacrificing the working life of the capacitor and saving material in α T² (as T reduces, area A also reduces to get same capacitance).

MARK NEW NOS.

Double side

metallised C.T.P.

TEL: 2501 3561 / 2 / 3 6575 4002 / 3 / 4

FAX : 2501 0758 / 3660



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Mumbai- 400 077. Tel.: 2516 8281 / 82, 5575 4002 / 03. Fax : 2516 8283 / 0758 • e-mail: momayacapacitor@vsnl.net



Aluminium Foil



Aluminium Foil

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