

# **POWER CAPACITORS**



WVIRONN PF=0.9 **Reactive Power** .... Active Power **Available Active** Power

ENERGY

Δ



Plain Tissue

PP

Aluminium Foil

Paper Film

# **INTRODUCTION**

NIFA ELECTRONICS Began outlining sound company framework, built on professional lines way back in 1991. NIFA ELECTRONICS has grown by leaps and bounds in exponential manner to become one of the major player in the field of POWER CONDITIONING, POWER MANAGEMENT & Allied Technical Services..

## BRIEF ABOUT POWER CAPACITORS

Generating reactive power at the point of consumption helps energy production and thus saves energy. It frees power plant capacity for the production of active power and reduces losses in transmission and distribution systems. At the same time, there is a higher capacity available for the transmission of active power.

To generate reactive power at the power plant is uneconomical, producing losses in the electricity network. This leads to increased use of primary energy. In transmission and distribution systems, reactive power requires as much capacity as active power.

To increase the efficiency of their performance, electricity suppliers and the owners of transmission and distribution networks have adopted a "reactive power tariff", which encourages consumers to produce locally the reactive power they need, for example with the help of compensation capacitors.

In boosting the production and distribution of electricity, reactive power compensation reduces the need for oversized power plants and distribution networks.

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# **Mixed Di-Electric Capacitors**

"Nitel - SUBODHAN" Mixed Di-Electric Capacitors are manufactured using one layer of Tissue Paper and one layer of Plain Polypropylene film between two electrodes of Plain Aluminium Foil (Soft, Annealed, 99.3% and above purity) and have extended foil design to ensure low watt losses. Tissue paper soaks the impregnant by capillary action ensuring perfect impregnation. PP film offers excellent insulation strength making the capacitor stronger.

### **SPECIFICATION**

Voltage	: 415 or 440 V.A.C.
Max. Cont. Over Voltage	: 110%
Max. Over Current	: 1.7 x I Rated Current
Frequency	: 50 Hz
Impregnant	: Non-PCB
Insulation Level	: 3 kV
Dielectric	: Tissue Paper
	& Plain PP Film
Losses	: 1.5 Watts/kVAr max.
Lower losses achievable	with special design.

# **NON-SELF HEALING**

HEALING

# All PP Capacitors

"Nitel - SUBODHAN" All PP Capacitors are manufactured using Double Hazy and Double Thick Polypropylene films between two electrodes of Thick Aluminium Foil (soft annealed, 99.3% purity) and have extended foil construction to ensure low watt losses. The capacitors are impregnated with Non PCB, bio-degradable impregnant, and hemetically sealed.

### **SPECIFICATION**

Voltage	: 415 or 440 V.A.C.			
Max. Cont. Over Voltage : 110%				
Max. Over Current	: 1.7 x I Rated Current			
Frequency	: 50 Hz			
Impregnant	: Non-PCB			
Insulation Level	: 3 kV			
Dielectric	: Double Hazy,			
	Double thick PP film.			
Losses	: 0.5 Watts/ kVAr max.			
Lower losses upto 0.2 W/kVAr on request.				

### **MPP** Capacitors



"Nitel - SUBODHAN" MPP Capacitors are manufactured using imported Zn-AI Metallised Polypropylene Film with reinforcement (Heavy Edge). This special construction enables capacitor to withstand higher switching surges. Assembly is done in CRCA container and impregnated with NPCB oil in case of oil filled capacitors.

For dry type capacitors, modular construction is done using single phase modules in Aluminium cans, which are filled with polyurethane resin. These modules have pressure interrupter arrangement for safety against bursting. The modules are assembled in CRCA container.

### SPECIFICATION

:	415 or 440 V.A.C.
:	10% Continuous
:	1.3 x I Rated Current
:	50 Hz
:	Non-PCB
:	3 kV
:	Zn Al. Alloy
	High Edge MPP Film
:	0.5 Watts/kVAr.

container.

### **SPECIFICATION**

/oltage	: 415 or 440 V AC
Max Cont.Over Voltage	: 10% Continuous
Max.Over Current	: 1.3 x I Rated Current
Frequency	: 50 Hz
mpregnant	: Oil\Wax\Gel
nsulation Level	: 3 kV
Die electric	: Zn.Al Alloy
	High Edge MPP Film
Losses	: 0.5 Watts/ kVAr

### SU-CAP C First Time in India Environment Friendly Hazard Free No SF6

# **SU-CAP CAPACITOR**

"NITEL-SUBODHAN" SU-CAP CAPACITORS are manufactured using Heavy Duty, Zinc-Alloy Slope Type MPP Film in hermatically sealed AI.Case with Oil/Wax/Gel impregnation..

This special construction give edge in similar range of product as well as deliver effective performance from 5 Deg Cel to 55 Deg Cel & in tropical environment.

### PRODUCT RANGE

Online UPS

- HT & LT Industrial AVR
- Servo Stabiliser
- Ultra Isolation Transformer
- Automatic Power Factor Control Panel
- Maximum Demand Control Panel
- Special Control Panels

## **CUSTOMER SUPPORT**

Centrally located in Ahmedabad, the customer support division remains consistent in progressively adding to its well-deserved reputation, spurred by a scientific spirit, entire team of engineers & technicians involved in the maintenance operations, meticulously work to keep customer demands satisfied. Our commitment to the customer goes beyond executing the best possible equipment. To help assure the perfect match of product & application, we offer and extensive direct support at all levels.

\*We reserve the rights to change product specification without prior notice.



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SERVICES

• Energy Audit Study

Power Quality Management

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