



FILM CAPACITORS

Standard or custom film capacitors
meeting your requirements

POWER | DISCHARGE | MOTOR RUN



cefem-group.com

// Film capacitor specialist

CEFEM has satisfied customers around the world with its high quality film capacitors.

We manufacture capacitors adjusted to the needs and budget of our customers. CEFEM can therefore design custom capacitors, taking into account all your constraints (size, surge, intermittency, etc).

OUR MISSION

To provide optimized and long lasting **tailored made or on catalog capacitors** with the following characteristics:

- ❶ From few nF to tens mF
- ❷ Up to 100,000 Vdc
- ❸ Up to 450 Arms
- ❹ Up to 200,000 hours life-time
- ❺ Up to 40% volume reduction
- ❻ Up to 50% weight reduction



MADE IN FRANCE. SOURCED IN EUROPE.

CEFEM is a French company based in the South-East of France. This is a guarantee of quality for all our products made in France. Moreover, our design office works in close collaboration with production. This allows us to carry out all our tests internally. We thus control the value chain. It also allows us to save time as every stakeholder of the company is present in the same unit.

CEFEM makes all its purchases in Europe from the film to the screws. It guarantees high-end and long-lasting products. Buying in Europe also allows us to reduce our delivery times, in addition to reducing our carbon footprint.



SCR CAPACITORS

Based in Châteauroux, in France, SCR is specialized in the manufacture of film capacitors **since 1949**. Recognized worldwide, SCR capacitors are now marketed under the name CEFEM Power since its buyout in 2014.





// The right capacitor for the right application

POWER. RELEASE. START.

With decades of experience, CEFEM has developed at least three specific offers of film capacitors to meet your specific needs: power factor correction, harmonic filters, motor run, discharge, UPS technology, DC links as well as many other AC and DC applications. Our group is committed to providing you with personalized support to find the solution that best suits your needs.

POWER

AC Capacitors
DC-link
Snubber
Traction
Resonance

DISCHARGE

Discharge
H.T Polyester
H.T Polypropylene
High temperature

MOTOR RUN

Aluminium AC
AC Plastic
MKP Box Type
S3
High temperature

HOW OUR CAPACITORS ARE MADE

CEFEM is a French group specialized in the development and manufacturing of film capacitors. Our engineers and doctors put all their skills at the service of a product that will meet your needs and expectations. For years, our R&D team has been keeping abreast of all the technological advances in this field. This allows CEFEM to offer quality, durable and environmentally friendly film capacitors.

TECHNOLOGY



Polypropylene



Self healing



Variable metallization profile

COMPATIBILITY



Dry capacitors



Impregnated capacitors

LIFETIME

100 kh

Up to 200 kh

PLUG-IN YOUR CAPACITOR

Connections and isolators are key when it comes to capacitors, specially when the space between the case and the connectors are close. Creepage distance needs to be respected in order to avoid any problems. At CEFEM, it's something we look at vigorously.

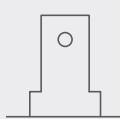
SCREWS



WIRES



FAST-ON



OPTIONAL

Isolators
(UL, plastic, ceramic...)

PUSH-IN SPRING CONNECTION



BUSBAR



Thermoswitch

PT100 Probe

OTHER CONNEXIONS AVAILABLE

// Segmentation to get protection

At CEFEM, using breakthrough technologies is part of our values. Segmented film is one of them.

Segmentation technology replaces the overpressure one. Our film embeds fuses meaning that when a fault occurs, the outside circuitry will rush through the low resistance path created by the fault. Consequently, the fault will heat and vaporize surrounding fault site. The amount of gas and the default will be limited to the area where the fault occurred.

WHY CHOOSING SEGMENTATION?

- ⦿ Cheaper and Lighter
- ⦿ No Maintenance
- ⦿ Can be cast on in any way possible
- ⦿ More ecological

2 TECHNOLOGIES FOR 2 PURPOSES

2UN-PROTECTION Against Surge

TECHNOLOGY

Standard capacitor + Fusibles in the film

OUTCOME

Up to
2xUn
100 times during
capacitor life time

Up to
400 Arms
Higher rms current
for a volume of 12L

<40 nH
Very low series
inductance

120,000h
Lifetime

+15°C
Maximum
temperature rise

<0,5 mΩ
Very low ESR

LL-PROTECTION Long lasting protection

TECHNOLOGY

2Un-Protection + Electrical safety protection

OUTCOME

150/200 kh
Lifetime

Up to
250 Arms
Higher rms current
for a volume of 10L

<20 nH
Very low series
inductance

+15°C
Maximum
temperature rise

<0,5 mΩ
Very low ESR

// Our market

CEFEM provides film capacitors to several markets with a focus in **railway, new energies, naval, power quality and industry.**

CEFEM is your ideal partner: from advisory services to the designing process of film capacitors, we are with you every step of the way.



// Our other technologies

MF INDUCTIVE COMPONENTS

Since the creation of the company, Cefem has been in constant evolution. After low-frequency magnetic components (50/60Hz), Cefem have been focusing for more than 10 years on the development and manufacturing of medium-frequency inductive components (from 1 to 100kHz).

In addition to being an economical option for manufacturers, this is a real commitment to the environment.

RAILWAY

Cefem's passive components are used in demanding applications such as trains and subways. Thanks to years of R&D and experience in the railway industry, our components are lighter and more efficient while perfectly meeting the most demanding specifications. Our experts focus on thoroughly testing all components, including extreme weather conditions, shock and vibration resistance, and more.

// Thinking green every step of the way

Climate change has speeded up tremendously since the second half of the last century. This is why it is essential that CEFEM produces better and more responsibly. The objective is to meet the growing needs of our societies, while respecting our environment.

CEFEM intends to undertake actions in various sectors: railways, industry and decarbonised electrification. The CEFEM group's goal is to provide concrete solutions to reduce the carbon footprint throughout the value chain of its solutions.

- Increase the efficiency of our products
- Reduce the amount of material in passive components
- Recycle components after use (R&D topics)
- Reuse passive components by repairing them
- Use less polluting, more recyclable materials
- Monitor components to improve their life span



The CEFEM group is expanding rapidly

We are present in several countries:
in France, Romania and India.



Professional equality between women and men
is a fundamental value of our group. That is why we are
pleased to communicate our gender equality index:

93/100



Working towards a total
decarbonised electrification
of our society. How?
By developing
and manufacturing
passive components
for energy conversion.



For more than 30 years, we have
been committed to reducing the
impact of industrial processes
on the environment and ensure
the safety of operators.
We achieve these objectives
by developing and manufacturing
safety cabinets and measuring
devices for industrial sites.



Because it is high time
to further develop renewable
energies, we manufacture
photovoltaic inverters
and install solar power plants.
We put people and the
environment at the heart
of our values. This is the main
orientation of our R&D.



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