

# **PRT**

## **Three phase Power Capacitor**

# PRT power capacitors

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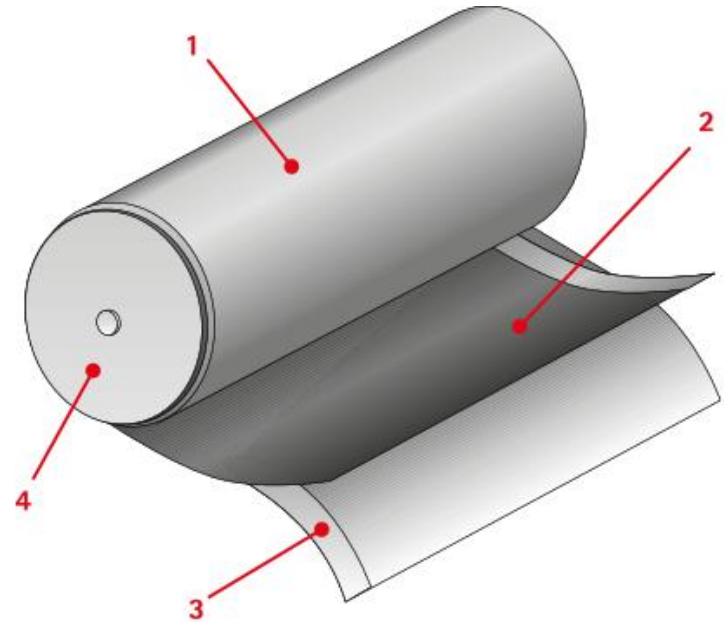
- Metalized polypropylene film technology
- Overpressure disconnecter
- Terminal board
- Internal layout
- Performances
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# PRT power capacitors

## METALIZED POLYPROPYLENE FILM TECHNOLOGY

- high gradient metallized polypropylene, for excellent voltage performances
- Wave-cut technology, to better stand the inrush currents
- Vacuum treatment before filling, to improve capacitor life expectancy



1 CAPACITIVE ELEMENT

2 METALIZED POLYPROPYLENE FILM (ON ONE SIDE ONLY)

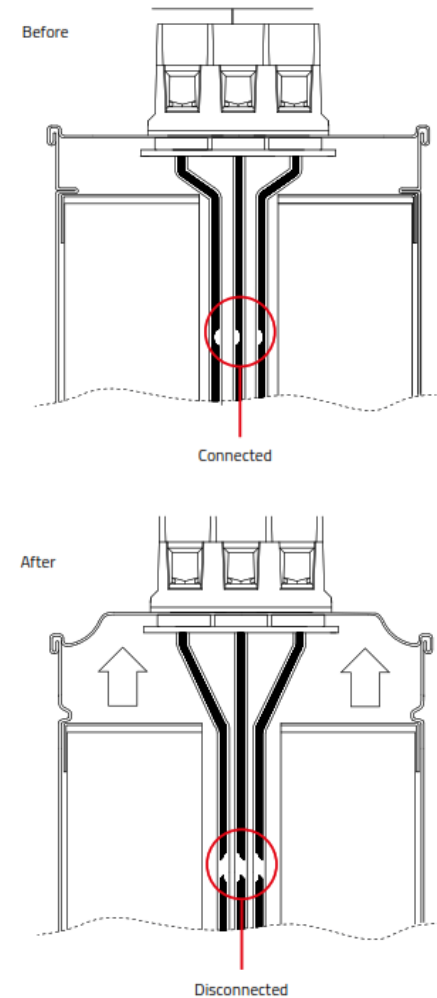
3 EDGE FREE FROM METALLIZATION

4 CONTACT AREA

# PRT power capacitors

## OVERPRESSURE DISCONNECTOR

- 3 overpressure disconnectors, one for each phase, for a total disconnection for supply
- Top lid made of steel
- Top lid bending in case of activation, less energy required



# PRT power capacitors

## TERMINAL BOARD

- The terminal board is made of self-extinguishing fiberglass-reinforced nylon
- The strip accommodates the three terminals and provides IP20 degree of protection.
- IP54 cover available



# PRT power capacitors

## DISCHARGE RESISTORS

- The discharge resistors are always connected and supplied
- Resistors are external in order to do not overheat the capacitor element
- SMD technology resistor, smaller, reduced thermal impact.



# PRT power capacitors

## INTERNAL LAYOUT

- Cylindrical casing of extruded aluminum.
- Biodegradable vegetable oil filler.
- **Resin and gas filler for the full dry technology, DPRT series**
- Copper solid cylindrical connector or copper plane conductor.



# PRT power capacitors

## PERFORMANCES

GENERAL CHARACTERISTICS	
Rated voltage ( $U_n$ )	230 - 690 V
Rated frequency	50 Hz (60 Hz on request)
Tolerance on capacitance	- 5 % / + 5%
Temperature class	- 25 ° C / + 55° C
Dielectric losses	$\leq 0,2$ W/kvar
Total losses (at the terminals)	$\leq 0,5$ W/kvar
Insulation level	3/15 kV $U_e \leq 660$ Vac
Max. permitted current	1,5 $I_n$
Maximum peak value of the current transient	$\leq 200$ $I_n$
Voltage test between the terminals	2.15 $U_n$ for 2"
Voltage test between the terminals and container	3 kV per 10"



# PRT power capacitors

## PERFORMANCES

GENERAL CHARACTERISTICS	
Discharge resistors	External (reduction to 75 V within 3 min)
Service	Continuous
Installation	Indoor
Cooling	Natural or forced air
Max permissible humidity	95%
Altitude	≤ 2000 (m a.s.l.)
Degree of protection	IP20 (IP54 upon request)
Expected life	>130.000 h (classe D) - >150.000 h (classe C)
Fixing	With M12 stud
Reference standards	IEC 60831-1/2
Number of switching operation	Max 5000 switchings per year according to IEC 60831-1

# PRT power capacitors

## APPROVALS

**CESI** KEMA Labs

**INSPECTION REPORT** APPROVED C0015811

**Client** ENERLUX POWER S.r.l.  
Via G. Rossa, 6 – Viadana (MN) – Italy.

**Subject** Inspection to type and routine tests on three-phase shunt power capacitors of the self-healing type for a.c. systems, type PRT.5227 (26,7 kvar – 525 V).

**Place and date of inspection** ENERLUX POWER S.r.l.  
Via G. Rossa, 6 – Viadana (MN) – Italy.  
October 05<sup>th</sup> to 08<sup>th</sup>, 2020.

**Notes** -

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PER LE SEGUENTI ATTIVITÀ / FOR THE FOLLOWING ACTIVITIES

Progettazione e produzione di condensatori, apparecchiature, sistemi di rifasamento industriale e filtri armonici per bassa, media e alta tensione  
Design and production of capacitors, equipment, systems for power factor correction and harmonic filters for low, medium and high voltage

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**DATE:** PRIMA CERTIFICAZIONE / FIRST CERTIFICATION 25/06/1999  
**EMISSIONE CORRENTE / CURRENT ISSUE** 11/04/2024  
**SCADENZA / EXPIRY** 04/05/2027

*Stefano Bossi*

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# THANK YOU

