Leclanché Capacitors
A FISCHER & TAUSCHE COMPANY

Compact, High-Voltage, Metallized Polypropylene Power Capacitors KPST

Applications

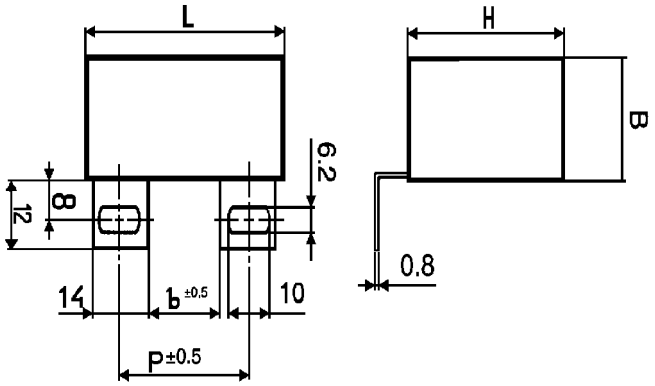
- AC applications with high peak, RMS current
- High pulse loading, snubber applications
- Directly mount to IGBT the bus module or across bus

Main Characteristics

- AC, DC voltage
- Insulation resistance
- Protection against over voltages

Design

- Metalized film electrodes
- Polypropylene film dielectric
- Non-inductive, self-healing construction
- Plastic flame retardant case
- Epoxy resin sealed



$$U_{MAX} = \sqrt{\frac{P_L}{2\pi \times f \times C_R \times tgD}}$$

Nominal Voltage DC	250VDC	This is the max DC or peak voltage for which capacitor is designed. If the capacitor works with DC and also super-imposed AC voltage U_{AC}, then the sum of DC and the amplitude of AC must not exceed U_R
Nominal Voltage AC	160VAC	50/60Hz. If the working frequency is higher, the permissible AC voltage must be decreased, not to exceed the maximum loss power of the capacitor.
Rated Capacitances	3.3µF - 22µF (see table below)	
Tolerances	Typically ±10% or ±20%, but other tolerances available on request	
Dissipation Factor	Tgδ	<0.001 at 1kHz and + 25°C.
ESR	At 100kHz and +25°C < mΩ	
Insulation resistance R_{IS}	30 000/C [MΩ]	
Operating Temperature	-40 ÷ +85°C on case. The highest permissible capacitor temperature at the hottest point of the case must not exceed +85°C.	
Max. permitted dissipation power of the capacitor P_L :	Depends on the cooling conditions	
Test voltage between terminals	2000VDC, 2 min at +25°.	
Protection against over-voltages	The capacitors are built using self-healing films.	
Non Recurrent Surge Voltage	U_{PK} 400V	If the over-voltages exceed the permissible value above, the capacitor may not survive.
Test voltage between terminals and case	2000VDC, 1 min. at +25°C	
Max. repetitive rate of voltage rise dU/dt	< 25V/µsec at U_R and +25°C	
Max. peak current I_P	< C_R x dU/dt	
Related standards	IEC 60384-1	

Leclanché Capacitors for Critical Applications and Extreme Environments.
Tel. +41 24 445 66 88 - Fax +41 24 445 66 89 capinfo@Lcap.ch www.Lcap.ch

Leclanché Capacitors
A FISCHER & TAUSCHE COMPANY

Compact, High-Voltage, Metallized Polypropylene Power Capacitors KPST

Capacity CR [µF]	Dimensions ±1 [mm]				
	B	H	L	P	PL [W]
3.3	21	30	42.5	18 ÷ 25	1.6
4.7	28	37	42.5	18 ÷ 25	2
6.8	28	37	42.5	18 ÷ 25	2
10	30	45	42.5	18 ÷ 25	2.5
15	30	45	42.5	18 ÷ 25	2.5
22	40	50	42.5	18 ÷ 25	3