



DC 81 series

High Performance DC Filter Capacitor

Small Plastic Box Case

DC 81 Capacitors are the ideal solution as DC filter for power electronic applications requiring high current capability and small size designed for mounting on print circuit board. It provides to customers a modular solution on which to develop and scale their projects. In addition, the construction with internal wound element made with special metallized film, very low internal self-inductance and potted with resin in self-extinguish plastic case give a superior capacitor type with very high stability and reliability performance.

Main characteristics:

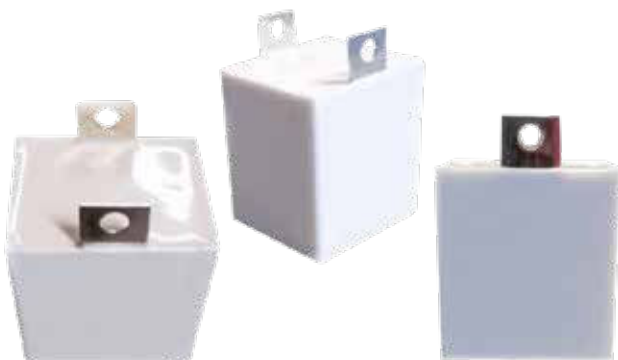
- Self-Healing Metallized Polypropylene Film
- Small size, very low ESL
- Modular solution
- Self-extinguish Plastic Case
- DRY Self-extinguish Resin filling

Main applications:

- DC – Link Filtering
- Wind and Solar Power Applications

General Characteristics

Rated DC voltage (Un)	700 - 1800
Capacitance tolerance	±10%
Maximum effective current (Imax) - continuous	40 Arms
Series resistance (RS)	1 – 3.5 mΩ
Terminals	Double flat tag 15x0.8mm with Ø6.2mm holes
Film Dielectric type	Self-healing metallized polypropylene film
Box container	Self-extinguish plastic
Mounting	Any position - Indoor / On PCB
Insulation distance CREEPAGE / CLEARANCE:	38 / 38 mm
Self Inductance (ESL)	< 20 nH
Working ambient temperature	-25 .. +50 °C
Operating temperature MIN/ MAX (case)	-25 .. +70 °C
Maximum Hotspot temperature	+85 °C
Storage temperature	-40 .. +85 °C
DC test voltage between terminals	1,5x Un – 10s
AC test Voltage between terminals and container (to ground)	2.5kVac 50Hz 10 s
Life expectancy (@Un / 60°C hot spot)	70.000 h
Failure quota	300 FIT
Reference standards	IEC 61071-1/2





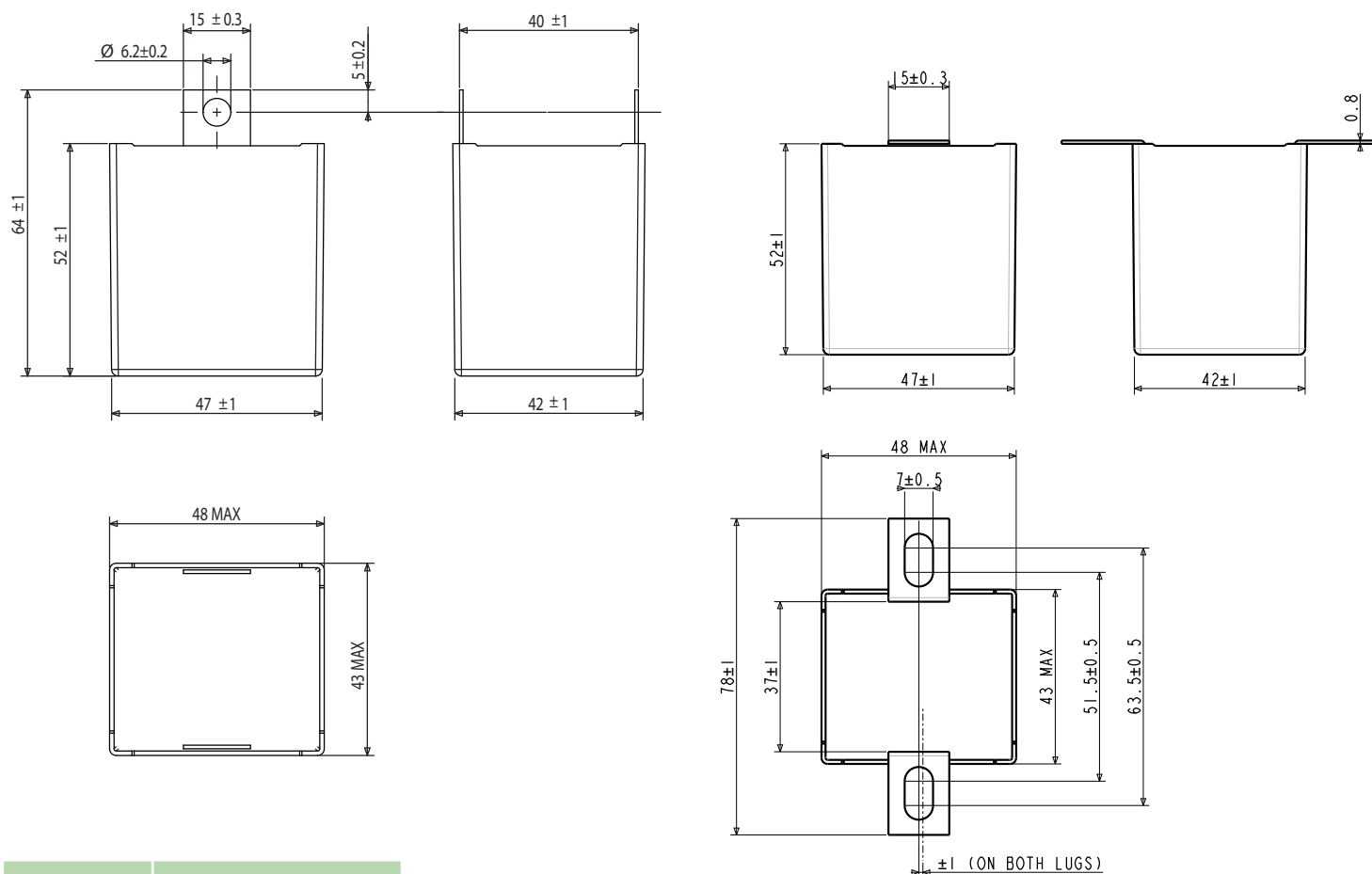
Capacitance Cn [μF]	DC Rated Voltage Un [V]	Repetitive peak Voltage Up [V]	Surge Voltage Us [kV]	Max. RMS Current I _{MAX} [A]	Repet. Peak Current Ip [kA]	Surge Current Is [kA]	Series Resistance Rs [mΩ]	Self- inductance ESL [nH]	Thermal Resistance R _{TH} [°C/W]	Part number 416.81.
50	700	1200	1,4	40	2,5	3,5	1,30	15	12,5	2095
30	900	1500	1,8	38	1,5	2,5	1,60	15	12,5	2595
25	1000	1650	2,0	35	1,3	2,3	2,10	15	12,5	3095
22	1100	1850	2,2	35	1,3	2,3	2,25	15	12,5	3595
16	1250	2100	2,5	32	1,1	2,1	2,60	15	12,5	4095
12	1450	2400	2,9	28	1,0	2,0	2,90	15	12,5	4595
9	1600	2650	3,2	25	0,9	1,9	3,20	15	12,5	5095
7,5	1800	3000	3,6	25	0,8	1,8	3,40	15	12,5	5595

NOTES:

(Cn) Tolerance standard value: ±10%. Other tolerance values on request.

(Cn) - (Un) Capacitance and rated voltage standard values, other values on request.

(Rs) Related at 1 KHz.

(R_{TH}) Thermal resistance with natural cooling.(I_{max}) Maximum RMS @ 50 °C ambient temperature and working frequency < 40KHz.**Dimensions:**

Pcs. per box	Box dimensions
32	mm 195 x 210 x 170

Version without holes available upon request.

