



GP 81 series

High Performance AC Filter Capacitor Small plastic Box Case

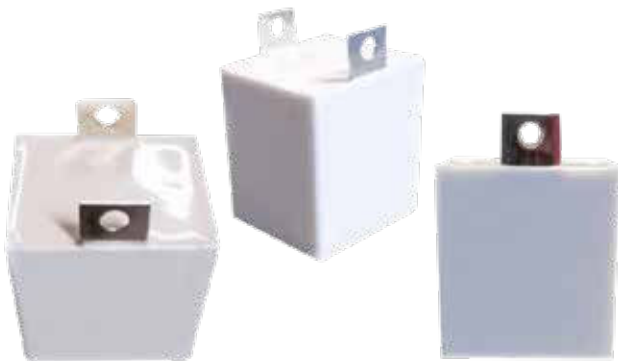
GP 81 Capacitors are the ideal solution as AC filter for power electronic applications requiring high current capability and small size designed for mounting on print circuit board. It provides to customers a modular solution on which to develop and scale their projects. In addition, the construction 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
- Self-extinguish Plastic Case
- DRY Self-extinguish Resin filling
- Modular shape

Main applications:

- AC Filtering
- UPS
- Wind and Solar Power Applications



General Characteristics

Rated AC voltage (Urms) - effective	200 - 550
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
AC test voltage between terminals	2x 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



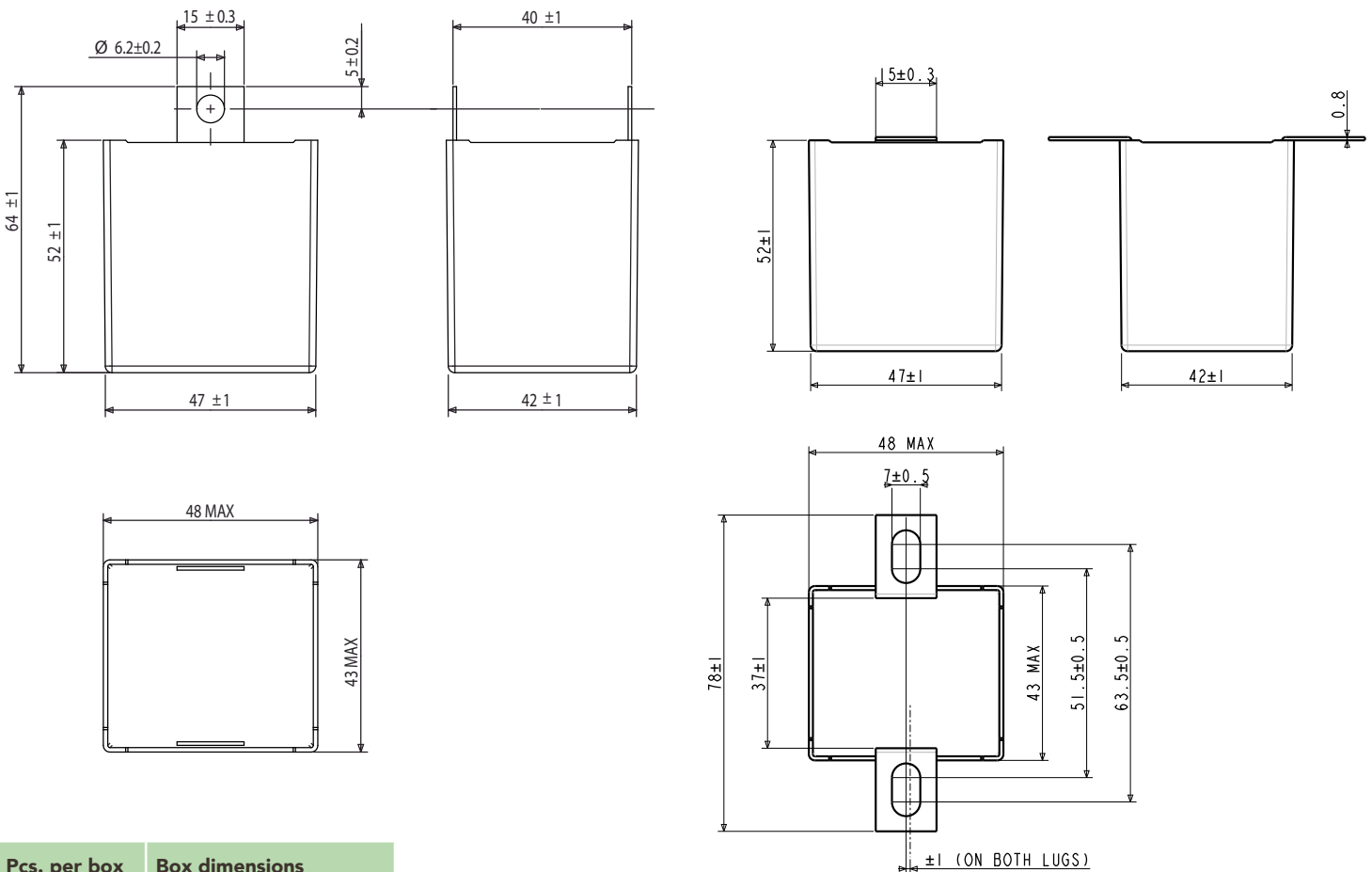


Capacitance Cn [μF]	AC RMS Voltage Urms [V]	Rated AC Voltage Un [V]	Surge Voltage Us [kV]	Max. RMS Current I _{MAX} [A]	Rated Current @50Hz In [A]	Repet. Peak Current Ip [A]	Surge Current Is [kA]	Series Resistance Rs [mΩ]	Self- inductance ESL [nH]	Thermal Resistance R _{TH} [°C/W]	Part number 416.81.
50	200	300	0,6	37	3,1	1406	3,0	1,30	15	12,5	2090
30	250	375	0,8	30	2,4	1140	2,7	1,60	15	12,5	2590
20	300	450	0,9	25	1,9	950	2,3	2,10	15	12,5	3090
15	350	525	1,1	23	1,6	874	2,1	2,25	15	12,5	3590
12	400	600	1,2	20	1,5	760	1,9	2,60	15	12,5	4090
9	450	675	1,4	18	1,3	684	1,8	2,90	15	12,5	4590
8	500	750	1,5	16	1,2	608	1,7	3,20	15	12,5	5090
6	550	825	1,7	14	1,0	532	1,5	3,40	15	12,5	5590

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.
- (Imax) 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.

