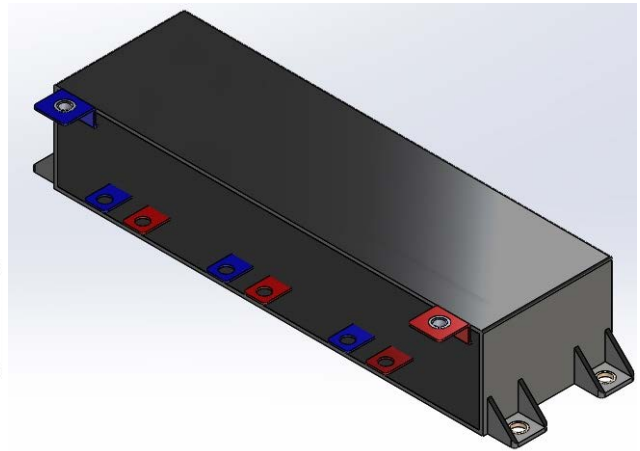


DC Link Capacitors for Hybrid Drives

PCHM912 (P912)

Preliminary data



Features

Can replace Electrolytic Capacitor
Long useful life time
Low ESR, High Ripple current capability
Low ESL (Self Inductance)
Excellent self healing properties

Construction

- Dielectric : Polypropylene
- Plastic Case : PPS. equivalent to UL94 V-0
- Sealing : Epoxy Resin.
- Terminal : Copper with Tin plating

Application

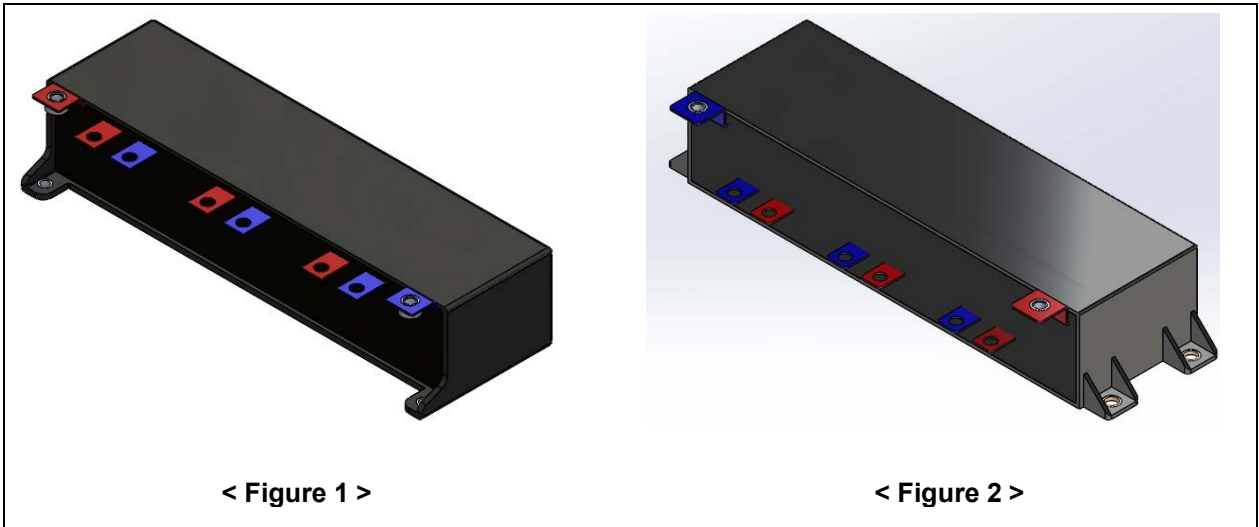
Any automotive and/or other application requiring DC Linkage

General DATA		
Capacitance range	< 1000uF ± 10%	
Rated Voltage	450Vdc	
Surge voltage	600Vdc	
Voltage Proof	Between terminals	675 Vrdc, 10s
	Between terminal to case	3000Vdc, 10s
Rins x C	>10000s	
Self Inductance (Ls)	< 15nH	
ESR (Rs)	< 0.8 mΩ	
Climatic category	40/105/21	
Temperature range	-40°C ~ 105°C	
Expected life time	Up to 15000hrs @ 105°C	
Failure rate	300FIT	

- Please refer to caution and warning at <http://www.pilkor.co.kr/download/Introductions.pdf> before using these products.

DC Link Capacitors for Hybrid Drives

**PCHM912
(P912)**

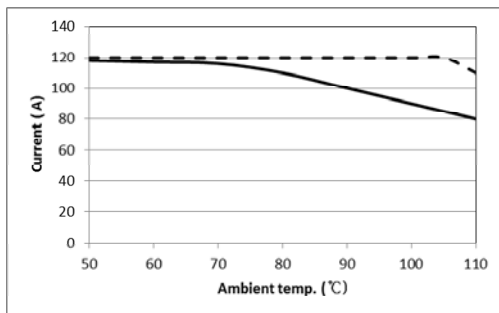


$V_R = 450Vdc$ $V_S = 600Vdc$

Cap (µF)	L x W x H (mm)	Fig.	I _{max} (A) ¹⁾	I [^] (KA)	I _s (KA)	R _s (mΩ)	L _s (nH)	Product Code
500µF	237 x 72 x 50	1	120	2	8	0.5	15	P912DA1507KA01
500µF	237 x 72 x 50	2	120	2	8	0.5	15	P912DA2507KA01
700µF	237 x 72 x 50	2	-	3	9	-	-	P912DA2707KA01

1) Considering maximum hot spot temperature at +105°C and cooling efficiency to be validated.

Current derating (typical curves)



(*) Dotted line shows the maximum current possible with cooling.
The continuous line shows the maximum current possible without cooling.

Ordering Information

Digit 1~4	
Code	Series Name
P912	PCHM912
Digit 8~10	
Code	Capacitance (example)
336	33µF
337	330µF
Digit 13~14	
01	Internal code

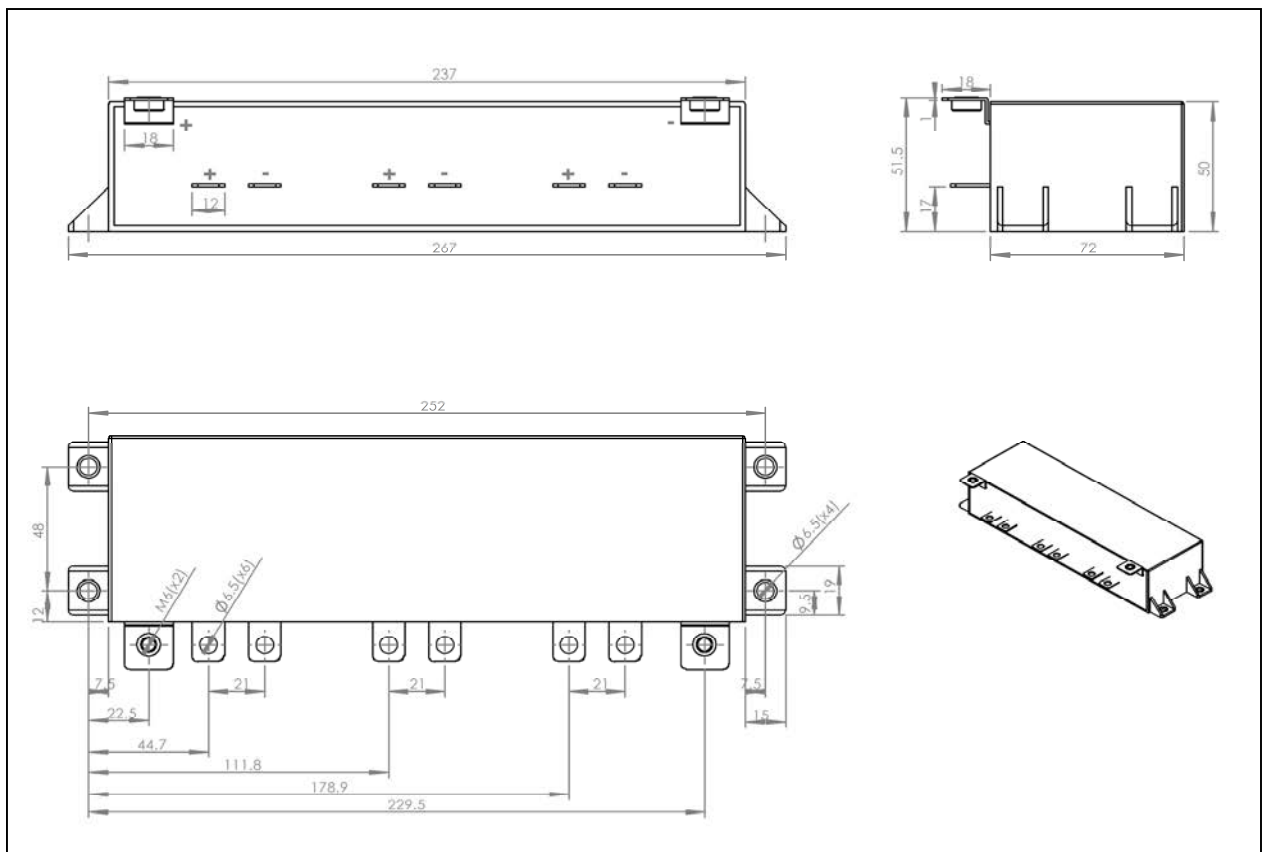
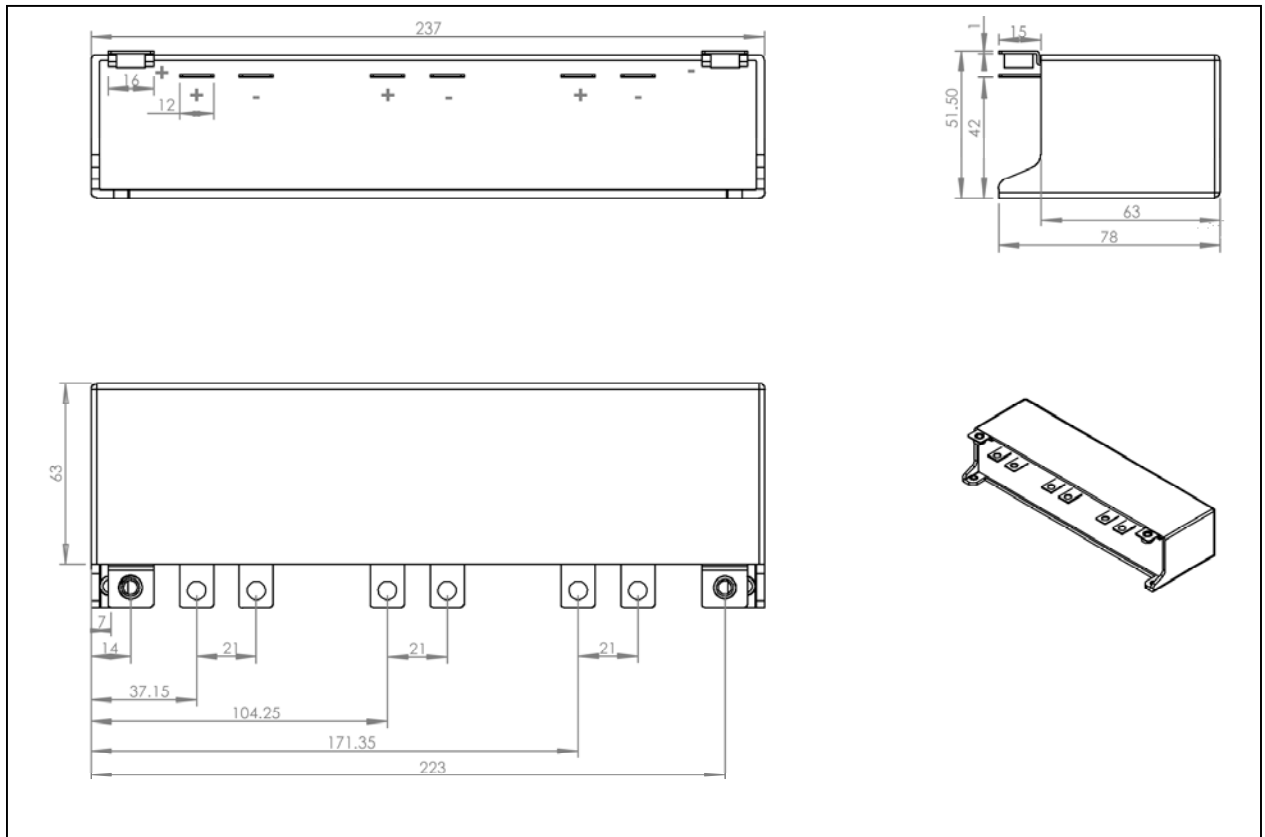
Digit 5~6	
Code	Voltage+Version
DA	450Vdc
FA	600Vdc
LA	1100Vdc
Digit 11	
Code	Capacitance Tolerance
J	± 5 %
K	± 10 %

Digit 7	
Code	Figure
1	1
2	2
X	Customized
Digit 12	
Code	Revision
A	Standard
S	special

DC Link Capacitors for Hybrid Drives

**PCHM912
(P912)**

Dimensional drawing



DC-Link film capacitors for Automotive (Customized)

PCHM912 (P912)



■ FEATURES

- High safety, Self-healing
- Open circuit failure mode
by fuse function patterned electrode
- Can replace Electrolytic Capacitor
- Low ESR, High Ripple Current capability
- Low ESL

■ APPLICATION

- Automotive inverter (HEV / EV / FCEV)
- Renewable energy sources such as
solar inverter / wind-turbine inverter
- High performance DC-Link application

QUICK REFERENCE DATA	
Dielectric	Metallized polypropylene
Capacitance range	< 5,000uF (Customer specific design)
Capacitance tolerance	5% / 10%
Rated voltage range	450Vdc to 1100Vdc
Self inductance	< 20nH at 1MHz
Maximum Permissible Current	< 400Arms
Temperature range	-40°C ~ +105°C
Life time expectancy	100,000 hours at VR , 70°C
Potting & Encapsulation material	Qualified in accordance with UL94V-0