

New!

DLCAP™ Module (Horizontal installation compatible)

Horizontal
installation
compatible

Low
Resistance

+70°C

RoHS2
Compliant

For an easy usage of Electric Double Layer Capacitor DLCAP™, we have prepared modules (horizontal installation compatible). By connecting multiple modules according to custom requirements, modules with higher voltage and larger capacitance can be made. Improved space efficiency for vertical multiple connections compared to our conventional products. (please refer 'Features of connection')

● Application Examples

◆ Energy Saving

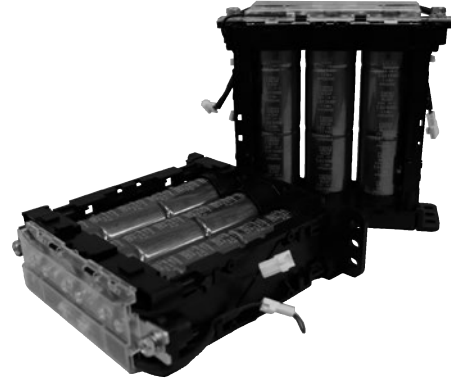
- Peak power assistance
- Effective recapture of kinetic energy

◆ Renewable Energy

- Stabilization of windmill power
- High efficient charge of solar energy
- Electricity assist for fuel cell

◆ Safety & Emergency Applications

- Momentary large power supply at power failure
- Back up for power source failure



● DLCAP™ Module

◆ FEATURES

- Voltage balance circuit installed
- Over voltage detection circuit installed
- Thermistor for temperature monitor installed

◆ SPECIFICATIONS

Items	Specifications
Operating Temperature	-40°C ~ +70°C
Capacitance Tolerance	+10%/-15% (20°C)
Temperature Characteristics	Capacitance Change $\leq \pm 30\%$ of the measured value at 20°C
	Internal Resistance Change $\leq 1200\%$ of the internal resistance maximum value given in the ratings tables (-40°C)
Load Life Test	After the capacitors are subjected to the rated DC voltage at 70°C for 2000 hours, the following specifications shall be satisfied when they are restored to 20°C .
	Capacitance Change $\leq \pm 30\%$ of the initial measured value at 20°C
	Internal Resistance Change $\leq 300\%$ of the internal resistance maximum value given in the ratings tables
Bias Humidity Test	After the capacitors are left at 40°C and 90 to 95%RH for 500 hours without voltage applied, the following specifications shall be satisfied when they are restored to 20°C .
	Capacitance Change $\leq \pm 30\%$ of the initial measured value at 20°C
	Internal Resistance Change $\leq 300\%$ of the internal resistance maximum value given in the ratings tables
Insulation Resistance	The measured value between the lumped terminal and the case using 500Vdc insulation resistance meter shall be more than 100M Ω .
Insulation Withstand Voltage	No abnormality after the AC 2500V is applied between lumped terminal and package for 1 minute. package for 1 minute.

◆ STANDARD RATINGS

Rated Voltage [V]	Capacitance		Case Size*2			Internal Resistance		Weight*1 [kg]	Energy Storage [Wh]	Part No.
	Typ. (rated) [F]	Min. [F]	D(H) [mm]	W [mm]	H(D) [mm]	Typ. [m Ω]	Max. [m Ω]			
7.5	466	396	54	186	173	3.6	4.2	1.2	3.7	MDXE7R5S461PB3111B

* 1 Reference data

* 2 (Horizontal)

● DLCAP™ Custom Module Acceptable

Customized specifications can be designed upon request.

◆ Custom design examples;

- High voltage application
- Large capacitance application
- High current application
- Proper balance circuit suggestion
- Usage under vibration or physical shocks
- Optional circuits for charge discharge control

Please consult us for other special specifications.

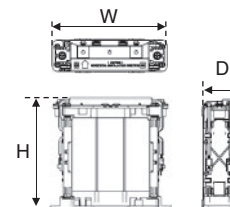
- If you need to connect more than 8 items in series please consult us.

◆ Screw Specification

Screw : M6

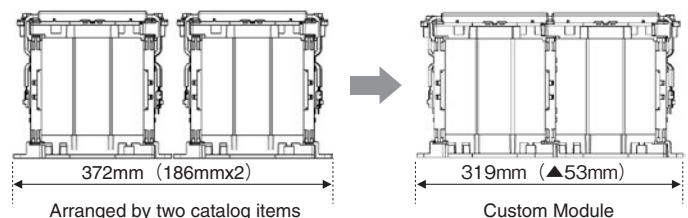
Tightening torque : 5.2Nm \pm 10%

◆ DIMENSIONS



★ Features of connection
Downsizing when connected vertically (Custom Module)

e.g.



DLCAP™ Module



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Items	Specifications	
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Capacitance Tolerance	+10%/-15% (20°C)	
Temperature Characteristics	Capacitance Change	≤ ±30% of the measured value at 20°C
	Internal Resistance Change	≤ 1200% of the internal resistance maximum value given in the ratings tables (-30°C)
Load Life Test	After the capacitors are subjected to the rated DC voltage at 70°C for 2000 hours, the following specifications shall be satisfied when they are restored to 20°C .	
	Capacitance Change	≤ ±30% of the initial measured value at 20°C
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◆ STANDARD RATINGS

Rated Voltage [V]	Capacitance		Case Size			Internal Resistance		Weight* ¹ [kg]	Energy Storage [Wh]	Part No.
	Typ. (rated) [F]	Min. [F]	D [mm]	W [mm]	H [mm]	Typ. [mΩ]	Max. [mΩ]			
7.5	133	113	54	180	97	6.6	7.8	0.7	1.1	MDXE7R5S131SB3111A
	400	340			182	2.7	3.3	1.2	3.2	MDXE7R5S401PB3111A
	466	396			182	3.6	4.2	1.2	3.7	MDXE7R5S461PB3111A

* 1 Reference data

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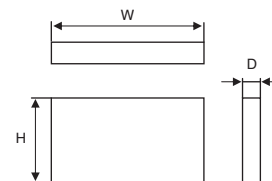
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◆ Screw Specification

Screw : M6
Tightening torque : 5.2Nm±10%