Screw Terminal type

# **DLCAP<sup>™</sup> DXE series**











- Suitable for electricity storage, battery assistance, short-term backups, etc.
- · Also suitable for kinetic energy recapturing, start/stop application for automobile.
- · Can be installed horizontally.





#### **SPECIFICATIONS**

| Items                       | Specifications  |   |  |  |  |  |  |  |
|-----------------------------|---|---|--|--|--|--|--|--|
| Operating Temperature       | -40°C ∼ +70°C   |   |  |  |  |  |  |  |
| Capacitance Tolerance       | ±10% (K)  |   |  |  |  |  |  |  |
| 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   |   |  |  |  |  |  |  |
| 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  |   |  |  |  |  |  |  |
|                             | Internal Resistance Change  | ≤ 300% of the internal resistance maximum value given in the ratings tables |  |  |  |  |  |  |
| Bias Humidity Test          | After the capacitors are left at 60°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 ≤±30% of the initial measured value at 20°C  |   |  |  |  |  |  |  |
|                             | Internal Resistance Change  | ≤ 300% of the internal resistance maximum value given in the ratings tables |  |  |  |  |  |  |

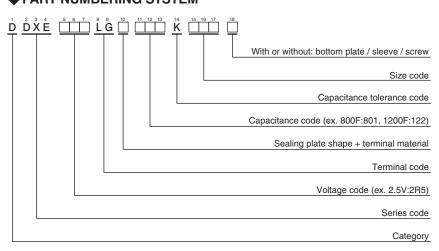
#### **STANDARD RATINGS**

#### DXE series

| Rated Voltage<br>[V] | Capacitance      |          | Nominal Case Size |       | Internal Resistance |           | Weight*1 | Energy Storage *2 | Part No.             |
|----------------------|------------------|----------|-------------------|-------|---------------------|-----------|----------|-------------------|----------------------|
|                      | Typ. (rated) [F] | Min. [F] | φ D[mm]           | L[mm] | Typ. [mΩ]           | Max. [mΩ] | [g]      | [Wh]              | Fait No.             |
| 2.5                  | 400              | 360      | 40                | 65    | 2.1                 | 2.5       | 120      | 0.4               | DDXE2R5LGN401KB65S   |
|                      | 800              | 720      |                   | 105   | 1.1                 | 1.3       | 200      | 0.7               | DDXE2R5LGN801KBA5S   |
|                      | 1200             | 1080     |                   | 150   | 0.8                 | 1.0       | 280      | 1.1               | DDXE2R5LGN122KBF0S   |
|                      | 1400             | 1260     |                   | 150   | 1.1                 | 1.3       | 280      | 1.3               | DDXE2R5LGN142KBF0S   |
| Rated Voltage<br>[V] | Capacitance      |          | Nominal Case Size |       | Internal Resistance |           | Weight*1 | Energy Storage*2  | Part No.             |
|                      | Typ. (rated) [F] | Min. [F] | φ D[mm]           | L[mm] | Typ. [mΩ]           | Max. [mΩ] | [g]      | [Wh]              | Fait NO.             |
| 2.5                  | 400              | 360      | 40                | 65    | 2.1                 | 2.5       | 120      | 0.4               | DDXE2R5LGL401KB65S*3 |
|                      | 1400             | 1260     |                   | 150   | 1.1                 | 1.3       | 280      | 1.3               | DDXE2R5LGL142KBF0S*3 |

# Horizontal installation

### **◆ PART NUMBERING SYSTEM**



<sup>\* 1</sup> Reference data

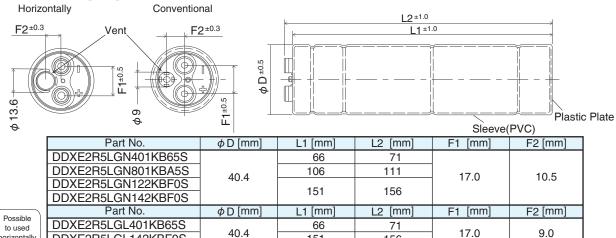
<sup>\* 2</sup> The energy storage capacity (Wh) described in this product is calculated based on 「電気及び電子機器用電気二重層キャパシタの輸送に関する手引書」(Japanese only) by JEITA.

<sup>\* 3</sup> Horizontal installation

DDXE2R5LGL142KBF0S

#### $\mathbf{DLCAP}^{\mathsf{TM}}$ **DXE** series

### **◆ DIMENSIONS [mm]**



151

 $(3^{\circ})^{\circ}$ 

5<sup>±0.2</sup> Detailed dimensions of the terminal 9 (8.3) 2.5  $\phi$  10.5 ( $\phi$  9.2)  $\phi 9 (\phi 8.1)$ 

() is the size of the corresponding product placed horizontally.

9.0

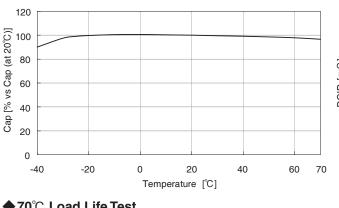
<Screw specification>

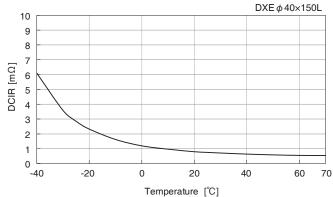
156

Plus hexagon-headed screw: M5×0.8×10 Maximum screw tightening torque: 3.23 Nm

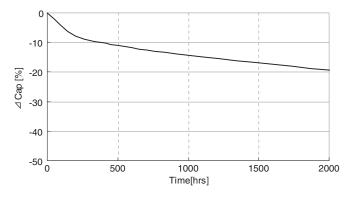
## ◆ Temperature Characteristics of Capacitance & DCIR

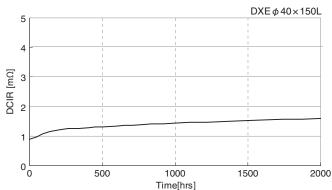
M5×0.8-Effective Depth 8





#### ♦70°C Load Life Test





- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.

  Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention
- measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

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  The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products
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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Introduction of Supercapacitors
Technical Notes
Precaution Statement