

## ESTAdry DC-Capacitor

### NOMINAL RATINGS

Capacitance/tolerance	$C_N$	710 $\mu\text{F}$	0 %/+ 5 %
Rated DC voltage	$U_{\text{NDC}}$	3600 V	

### OVER VOLTAGES ACCORDING TO STANDARD

$1.1 \times U_N$	$U_1$	3960 V (30 % of the working time)
$1.15 \times U_N$	$U_2$	4140 V (30 min/day)
$1.2 \times U_N$	$U_3$	4320 V (5 min/day)
$1.3 \times U_N$	$U_4$	4680 V (1 min/day)
$1.5 \times U_N$	$U_6$	5400 V (30 ms; max. 1000 x per LT)

### CHARACTERISTICS

Maximum current	$I_{\text{max}}$	240 $A_{\text{RMS}}$ <sup>(1)</sup>
Maximum peak current	$\hat{i}$	11.7 kA
Maximum surge current	$\hat{I}_S$	35.0 kA; 100 x per LT
Series resistance	$R_S$	< 0.6 m $\Omega$
Thermal resistance	$R_{\text{th}}$	0.5 K/W (hotspot-ambient)
Tangent of the loss angle	$\tan \delta_0$	$2 \times 10^{-4}$
Self inductance	$L_S$	< 57 nH

### ROUTINE TEST

Terminal/terminal	UT/T	5400 $V_{\text{DC}}$ , 10 s
Terminal/casing	UT/C	10 000 $V_{\text{AC}}$ , 10 s

### OPERATING TEMPERATURE

Minimum temperature	$\theta_{\text{min}}$	- 40 °C
Maximum temperature	$\theta_{\text{max}}$	+ 70 °C
Maximum hotspot temp.	$\theta_{\text{hs}}$	+ 85 °C <sup>(1)</sup>

### STORAGE TEMPERATURE

Minimum temperature	$\theta_{\text{min}}$	- 45 °C
Maximum temperature	$\theta_{\text{max}}$	+ 85 °C

#### Note

<sup>(1)</sup> Calculation of hotspot temperature:

$$P_D = U_{\text{RMS}}^2 \times 2\pi f \times C_N \times \tan \delta_0 + I^2 \times R_S$$

$$\theta_{\text{hs}} = \theta_{\text{amb}} + R_{\text{th}} \times P_D$$

### TECHNOLOGY

Dielectric	Polypropylene; metallized selfhealing
Filling material	$\text{N}_2$ ; resin; dry

### BUSHINGS D-283

Amount	4
Flash over distance T/C	35 mm
Creepage distance	50 mm
Terminal	M12
Maximal torque	15.5 Nm
Height	45 mm

### MECHANICAL DATA

Dimensions	455 mm x 340 mm x 175 mm
Drawing	07-B-1150
Weight	35 kg
Casing material	Stainless steel, antimagnetic
Painting	RAL 7033
Mounting position	Every position

### LIFE EXPECTANCY

> 180 000 h at 65 °C

### FAILURE RATE

100 FIT

### STANDARD

IEC 61071-2007-1  
IEC 61881-2007-1

### SPECIFICATION

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### REFERENCE

5192-31856-xx

**DIMENSIONS**

