

# HGN 系列 Series

## 特点 Features

- 耐高纹波，更长寿命，85°C 10000小时，可用于大功率电源、UPS不间断电源、变频器等电路中。  
High ripple current, Super long life, Load life of 10000 hours at 85°C,  
Used large power source, Uninterruptible power supplies,  
Frequency converter circuit .etc.
- RoHS指令已对应完毕。Adapted to the RoHS directive.



## 主要技术性能 Specifications

项目 Items	特性 Performance Characteristics					
使用温度范围 Operating Temperature Range	-25~+85°C					
额定电压范围 Rated Voltage Range	400~450V					
标称电容量允许偏差 Nominal Capacitance Tolerance	$\pm 20\% (+20^\circ\text{C}, 120\text{Hz})$					
漏电流 Leakage Current	$I \leq 0.01\text{CV}(\mu\text{A})$ 或 $5\text{mA}$ 5分钟 取较小值(at 20°C, after 5 minutes, Whichever is smaller)					
损耗角正切值(tgδ) Dissipation Factor(+ 20°C, 120Hz)	$\leq 0.15$					
温度特性 Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Rated Voltage (V)</td> <td>400~450</td> </tr> <tr> <td>Z-25°C/Z+20°C</td> <td>8</td> </tr> </table>		Rated Voltage (V)	400~450	Z-25°C/Z+20°C	8
Rated Voltage (V)	400~450					
Z-25°C/Z+20°C	8					
高温贮存 Shelf Life	<p>+85°C, 1000小时贮存后, 加额定工作电压处理30分钟, 恢复16小时后: after storage for 1000 hours at +85°C, <math>U_R</math> to be applied for 30 minutes and then resumed for 16 hours:</p> <p>电容量变化率 Capacitance change : <math>\pm 20\%</math> 初始测量值以内 <math>\pm 20\%</math> of the initial measured value</p> <p>漏电流 Leakage current : <math>\leq</math> 初始规定值 <math>\leq</math> Initial specified value</p> <p>损耗角正切值 Dissipation factor : <math>\leq 2</math> 倍初始规定值 <math>\leq 2</math> times of the initial specified value</p>					

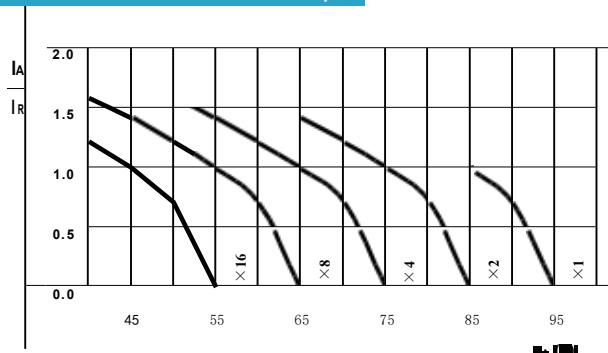
	使用寿命(Useful Life)		负载寿命(Load Life)	耐久性测试(Endurance Test)
寿命时间(Lifetime)	15000h > 150000h		10000h	10000h
漏电流(Leakage Current)	$\leq$ 初始规定值 Not more than specified value		$\leq$ 初始规定值 Not more than specified value	$\leq$ 初始规定值 Not more than specified value
电容量变化率(Caacitance Change)	$\pm 30\%$ 初始测量值内 Within $\pm 30\%$ initial value		$\pm 25\%$ 初始测量值内 Within $\pm 25\%$ initial value	$\pm 10\%$ 初始测量值内 Within $\pm 10\%$ initial value
损耗角正切值(Dissipation Factor)	$\leq 3$ 倍初始规定值 Not more than 300% of specified value		$\leq 2.5$ 倍初始规定值 Not more than 250% of specified value	$\leq 1.3$ 倍初始规定值 Not more than 130% of specified value
应用条件(Condition) 应用电压(Applied Voltage) 应用电流(Applied Current) 应用温度(Applied Temperature) 失效率(Outlier Perctage)	$U_R$ $I_R$ $85^\circ\text{C}$ $\leq 1\%$	$U_R$ $1.4 \times I_R$ $40^\circ\text{C}$ $\leq 1\%$	$U_R$ $I_R = 0$ $85^\circ\text{C}$ $0\%$	$U_R$ $I_R = 0$ $85^\circ\text{C}$ IEC6034

## 纹波电流的相关参数 Multiplier for Ripple Current

### 频率系数 Frequency Coefficient

Frequency (Hz)	50	100 (120)	300	1k	$\geq 10\text{K}$
Rated Voltage (V)	0.70	1.00	1.10	1.30	1.40
400~450	0.70	1.00	1.10	1.30	1.40

## 寿命时间图 Life Time Graph



此图表示电容的使用寿命时间  
The graphs shows a typical trend of the standard capacitor useful life.

尺寸 Dimensions

Rated Voltage	Surge Voltage	Rated Capacitance	Dissipation Factor MAX	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Max Ripple Current 85°C,120Hz	SIZE
(V.D.C)	(V.D.C)	(μF)	-	(mΩ)	(mΩ)	(Arms)	D×L(mm)
400	450	1500	0.15	141	75.2	6.8	51×115
		2200	0.15	96.5	51.3	8.3	51×115
		3300	0.15	64.3	34.2	11.0	63.5×115
		3900	0.15	54.4	28.9	12.4	63.5×130
		4700	0.15	45.2	24.0	14.4	76×115
		5600	0.15	37.9	20.1	16.3	76×130
		6800	0.15	31.2	16.6	18.9	76×155
		8200	0.15	25.9	13.8	21.5	76×170
		10000	0.15	21.2	11.3	25.2	89×155
		12000	0.15	16.5	9.5	29.1	89×195
		15000	0.15	13.5	7.3	35.0	89×195
450	500	1500	0.15	159	79.6	6.5	51×115
		2200	0.15	108	54.3	8.8	63.5×95
		3300	0.15	72.4	36.2	11.5	63.5×130
		3900	0.15	61.2	30.6	13.1	76×115
		4700	0.15	50.8	25.4	14.8	76×130
		5600	0.15	42.7	21.3	16.8	76×155
		6800	0.15	35.1	17.6	20.1	76×170
		8200	0.15	29.1	14.6	23.1	89×155
		10000	0.15	23.5	11.8	26.8	89×195
		12000	0.15	16.5	9.4	31.5	89×235