HFN 系列 Series

特点 Features

- 耐高纹波,长寿命，85℃ 5000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 curren, Long life, Load life of 5000 hours at 85℃,
  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℃
额定电压范围 Rated Voltage Range	350~450 V
标称电容量允许偏差 Nominal Capacitance Tolerance	±20% (120Hz, +20°C)
漏电流 Leakage Current	I ≤0.01CV(μA)或5mA 5分钟 取较小值（at 20℃, after 5 minutes, Whichever is smaller）
损耗角正切值(tgδ) Dissipation Factor （+20℃，120Hz)	≤0.15
温度特性 Temperature Characteristics (Impedance ratio at 120Hz)	Rated Voltage (V) 350~450 Z-25℃/Z+20℃ 8
高温贮存 Shelf Life	+85℃，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℃ , U_R to be applied for 30 minutes and then resumed for 16 hours 电容量变化率 Capacitance change ： ±20%初始测量值以内 ±20% of the initial measured value 漏电流 Leakage current ： ≤初始规定值≤ Initial specified value 损耗角正切值 Dissipation factor ： ≤2倍初始规定值 ≤2times of the initial specified value

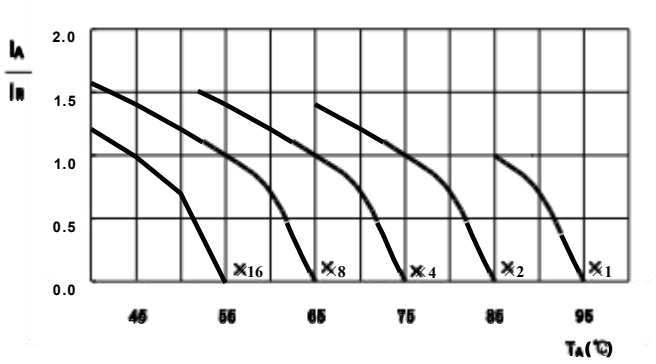
	使用寿命 (Useful Life)		负载寿命 (Load Life)	耐久性测试 (Endurance Test)
寿命时间(Lifetime)	10000h	> 75000h	5000h	5000h
漏电流(Leakage Current)	≤初始规定值 Not more than specified value		≤初始规定值 Not more than specified value	≤初始规定值 Not more than specified value
电容量变化率(Capacitance Change)	±30%初始测量值内 Within ±30% initial value		±20%初始测量值内 Within ±20% initial value	±10%初始测量值内 Within ±10% initial value
损耗角正切值(Dissipation Factor)	≤3倍初始规定值 Not more than 300% of specified value		≤2倍初始规定值 Not more than 200% of specified value	≤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 Percetage)	U_R I_R 85℃ ≤1%	U_R $1.4\times I_R$ 40℃ ≤1%	U_R I_R 85℃ 0%	U_R $I_R=0$ 85℃ IEC60384

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

频率系数 Frequency Coefficient

Frequency (Hz) / Rated Voltage (V)	50	100 (120)	300	1k	≥10K
350~450	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℃，120Hz	Typ ESR 20℃，120Hz	Max Ripple Current 85℃,120Hz	SIZE
(V.D.C)	(V.D.C)	(μF)	_	(mΩ)	(mΩ)	(Arms)	ΦD×L(mm)
350	400	1500	0.15	132	70.8	5.4	51×80
		2200	0.15	90.5	48.3	7.5	51×105
		2200	0.15	90.5	48.3	7.8	63.5×80
		2700	0.15	73.7	39.3	9.2	63.5×80
		3300	0.15	60.3	32.2	10.6	63.5×105
		3900	0.15	51.0	27.2	11.7	63.5×105
		4700	0.15	42.3	22.6	12.5	63.5×135
		4700	0.15	42.3	22.6	13	76×105
		5600	0.15	35.5	19.0	14.5	63.5×145
		6800	0.15	29.3	15.6	17.8	76×135
		8200	0.15	24.3	12.9	20.8	76×170
		10000	0.15	19.9	10.6	24.6	76×190
		12000	0.15	16.6	8.8	27.8	76×220
400	450	1000	0.15	212	112	4.9	51×80
		1500	0.15	141	75.2	6.8	51×105
		2200	0.15	96.5	51.3	8.1	63.5×80
		2700	0.15	78.6	41.8	9.2	63.5×105
		3300	0.15	64.3	34.2	10.6	63.5×115
		3900	0.15	54.4	28.9	12.3	76×110
		4700	0.15	45.2	24.0	14.4	76×130
		5600	0.15	37.9	20.1	16.5	76×145
		6800	0.15	31.2	16.6	18.1	76×170
		8200	0.15	25.9	13.8	20.8	76×190
		10000	0.15	21.2	11.3	23.2	76×220
450	500	1000	0.15	238	119	5.2	51×105
		1500	0.15	159	79.6	6.7	63.5×80
		2200	0.15	108	54.3	9.1	63.5×105
		2700	0.15	88.5	44.2	10.5	76×105
		3300	0.15	72.4	36.2	11.8	63.5×145
		3900	0.15	61.2	30.6	13.2	76×130
		4700	0.15	50.8	25.4	14.8	76×155
		5600	0.15	42.7	21.3	16.9	76×170
		6800	0.15	35.1	17.6	19.3	76×190
		8200	0.15	29.1	14.6	21.3	76×220
		10000	0.15	23.5	11.8	23.5	89×200