HHN 系列 Series

特点 Features

- 耐高纹波，长寿命，105℃ 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 current, Long life, Load life of 5000 hours at 105℃ .
  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~+105℃
额定电压范围 Rated Voltage Range	350~450V
标称电容量允许偏差 Nominal Capacitance Tolerance	±20%(+20℃，120Hz)
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	+105℃，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 +105℃, UR 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

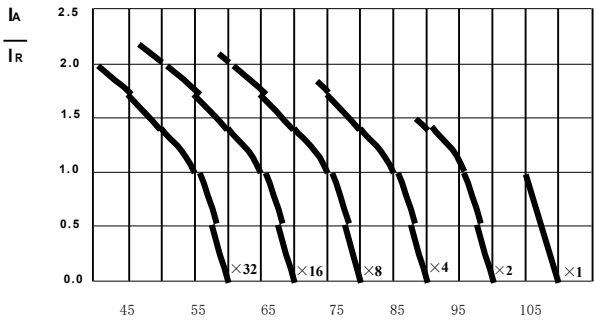
	使用寿命(Useful Life)		负载寿命(Load Life)	耐久性测试(Endurance Test)
寿命时间(Lifetime)	9000h	>200000h	5000h	5000h
漏电流(Leakage Current)	≤初始规定值 Not more than specified value		≤初始规定值 Not more than specified value	≤初始规定值 Not more than specified value
电容量变化率(Capacitance Change)	±30%初始测量值内 Within ±30% initial value		±20%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 105℃ ≤1%	U_R $1.4\times I_R$ 50℃ ≤1%	U_R I_R 105℃ 0%	U_R $I_R=0$ 105℃ 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	0.80	1.00	1.10	1.25	1.50

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 105℃,120Hz	SIZE
(V.D.C)	(V.D.C)	(μF)	-	(mΩ)	(mΩ)	(Arms)	D×L(mm)
350	400	1000	0.15	150	100	4.2	51×80
		1500	0.15	105	70	5.2	51×80
		2200	0.15	71	47	7.0	51×105
		2700	0.15	59	39	7.2	63.5×90
		3300	0.15	50	33	8.5	63.5×110
		3900	0.15	44	29	9.6	63.5×120
		4700	0.15	38	25	11.5	63.5×145
		4700	0.15	38	25	11.5	76×115
		5600	0.15	30	20	13.4	76×130
		6800	0.15	26	17	15.2	76×150
		8200	0.15	20	13	18.4	76×170
		8200	0.15	18	12	18.4	89×145
		10000	0.15	17	11	21.2	76×200
		10000	0.15	17	11	21.0	89×155
400	450	1000	0.15	150	100	4.3	51×80
		1500	0.15	98	65	5.8	51×105
		2200	0.15	59	39	7.6	51×130
		2200	0.15	68	45	7.6	63.5×105
		2700	0.15	53	35	7.9	63.5×115
		3300	0.15	44	29	9.2	63.5×130
		3300	0.15	44	29	9.4	76×105
		3900	0.15	36	24	10.8	76×120
		4700	0.15	30	20	12.6	76×145
		5600	0.15	26	17	14.5	76×155
		6800	0.15	23	15	17.3	76×190
		6800	0.15	21	14	17.8	89×155
		8200	0.15	20	13	20.0	76×220
		8200	0.15	18	12	20.2	89×170
		10000	0.15	15	10	23.2	89×190
450	500	1000	0.15	143	95	4.7	51×105
		1500	0.15	95	63	6.2	51×120
		2200	0.15	65	43	7.3	63.5×120
		2700	0.15	50	33	8.2	63.5×130
		3300	0.15	41	27	10.3	76×130
		3900	0.15	35	23	11.6	76×150
		4700	0.15	30	20	13.6	76×170
		5600	0.15	26	17	15.5	76×190
		5600	0.15	24	16	15.5	89×150
		6800	0.15	21	14	18.3	76×220
		6800	0.15	20	13	18.3	89×175
		8200	0.15	15	10	22.5	89×220
		10000	0.15	12	8	25.2	89×235