

# HN CD138型

- ◎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

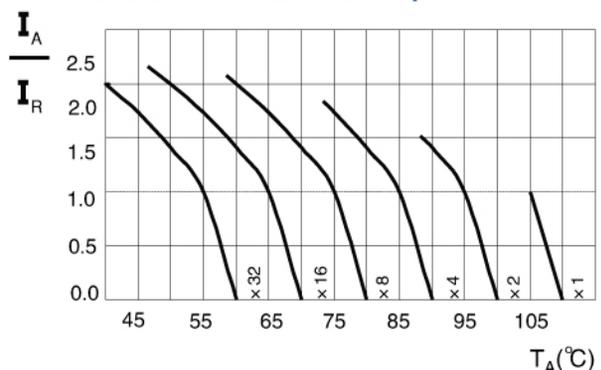
项目 Items	特性 Performance Characteristics	
使用温度范围 Operating temperature range	-25℃ ~ +105℃	
额定电压范围 Rated voltage range	350 ~ 450 V	
标称容量允许偏差 Capacitance tolerance	± 20% (120Hz, +20℃)	
漏电流 Leakage current	I ≤ 0.01CV(μ A)或5mA 5分钟 取较小值 ( 于 20℃,after 5 minutes ,Whichever is smaller )	
损耗角正切 ( tg δ ) Dissipation 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℃,U <sub>R</sub> to be applied for 30 minutes and then resumed 16 hours. 容量变化率 capacitance change : ± 20%初始测量值以内 Initial measured value. 漏电流 Leakage current : ≤ 初始规定值Initial measured value. 损耗角正切值Dissipation factor : ≤ 2倍初始规定值 2times 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
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)	U <sub>R</sub>	U <sub>R</sub>	U <sub>R</sub>	U <sub>R</sub>
应用电流 ( Applied Current )	I <sub>R</sub>	1.4 × I <sub>R</sub>	I <sub>R</sub>	I <sub>R</sub> =0
应用温度 ( Applied Temperature )	105℃	50℃	105℃	105℃
失效率(Outlier Percentage)	≤ 1%	≤ 1%	0%	IEC60384

## 频率的修正系数 Frequency coefficient

Frequency (Hz)	50	100 (120)	300	1k	≥ 10K
Rated Voltage (V)	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 (V.D.C)	Surge Voltage (V.D.C)	Rated Capacitance ( $\mu$ F)	Dissipation Factor MAX	Max ESR 20°C, 120Hz (m $\Omega$ )	Typ ESR 20°C, 120Hz (m $\Omega$ )	Max Ripple Current 105°C, 120Hz (Arms)	SIZE $\Phi$ 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 × 160
		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 × 110
		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