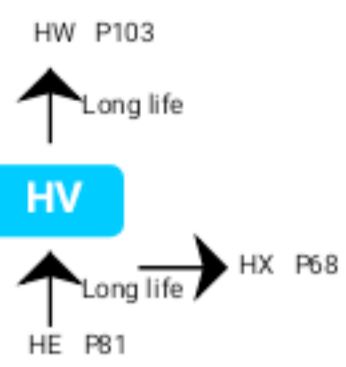


HV 系列 SERIES

- Uncharge-discharge
- High reliability
- RoHS



- 应对AC伺服放大器、变频器再生引起的频繁的大电压变化。
For frequently charge of regenerative voltage from AC servo amplifier and inverter control.
- 保证105°C、3000小时寿命。(叠加纹波电流)
Endurance with ripple current: 3000 hours at 105°C
- 额定工作电压范围：160V ~ 500V
Rated voltage range: 160V-500V
- 最适合高频度打开/关闭电源及电压变化大的电源用。
Ideal use to power supply, specially power source with turn on and off frequently and highly voltage fluctuation.

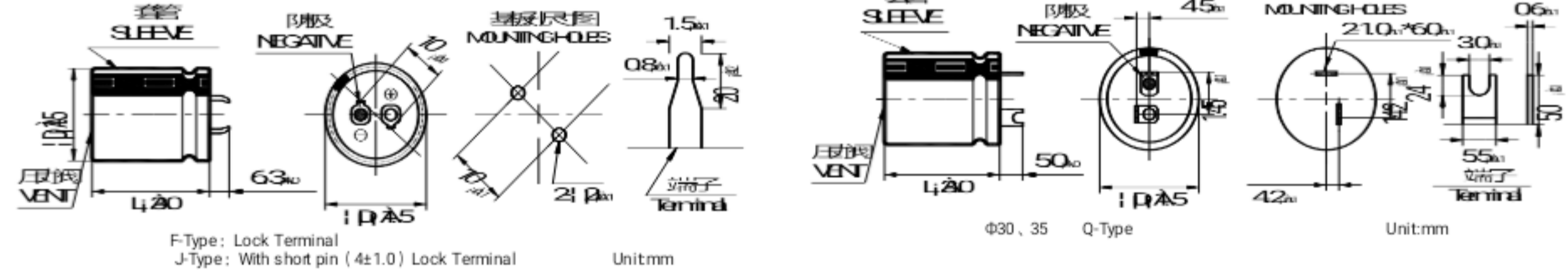
规格表 SPECIFICATIONS

项目 Items	特性 Characteristics																		
工作温度范围 Operating Temperature Range	-25 ~ +105°C																		
额定工作电压范围 Rated Working Voltage Range	160 ~ 500V																		
静电容量允许偏差 Capacitance Tolerance	±20% (20°C, 120Hz)																		
损耗角正切值 Dissipation Factor (MAX) 20°C, 120Hz	<table border="1"> <tr> <td>U_R(V)</td> <td>160</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450</td> <td>500</td> </tr> <tr> <td>tanδ</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.18</td> <td>0.18</td> <td>0.20</td> <td>0.20</td> </tr> </table>	U _R (V)	160	200	250	315	350	400	450	500	tanδ	0.15	0.15	0.15	0.15	0.18	0.18	0.20	0.20
U _R (V)	160	200	250	315	350	400	450	500											
tanδ	0.15	0.15	0.15	0.15	0.18	0.18	0.20	0.20											
阻抗比 Impedance Ratio (MAX) 120Hz	<table border="1"> <tr> <td>U_R(V)</td> <td>160</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450</td> <td>500</td> </tr> <tr> <td>Z_{-25°C}/Z_{+20°C}</td> <td>4</td> <td>4</td> <td>4</td> <td>7</td> <td>7</td> <td>7</td> <td>8</td> <td>8</td> </tr> </table>	U _R (V)	160	200	250	315	350	400	450	500	Z _{-25°C} /Z _{+20°C}	4	4	4	7	7	7	8	8
U _R (V)	160	200	250	315	350	400	450	500											
Z _{-25°C} /Z _{+20°C}	4	4	4	7	7	7	8	8											
漏电流 Leakage Current (MAX)	I = 0.01C _R U _R 或1.5mA取小者 (20°C, 施加额定电压5分钟后) I = 0.01C _R U _R or 1.5mA whichever is minimum. (at 20°C, After 5 minutes application of rated voltage) I = 漏电流 (µA) U _R = 额定电压 (V) C _R = 静电容量 (µF) Leakage Current Rated Voltage Rated Capacitance																		
充放电特性 Charge and Discharge	<p>在15~35°C环境下,用如图6Hz频率波形电压充放电5000万次,恢复20°C后检测,满足表中要求: Under the condition of 15-35°C, charge & discharge the capacitor 50 million times with 6Hz frequency voltage applied, then make the capacitor recover to 20°C, all requirements shown in the table are satisfied.</p> <table border="1"> <tr> <td>漏电流 Leakage current</td> <td>≤规定值 ≤Specified value</td> </tr> <tr> <td>损耗角正切值变化率 tanδ change</td> <td>≤规定值的200% ≤200% of specified value</td> </tr> <tr> <td>静电容量变化率 Capacitance change</td> <td>初始值±20%以内 Within ±20% of initial value</td> </tr> </table>	漏电流 Leakage current	≤规定值 ≤Specified value	损耗角正切值变化率 tanδ change	≤规定值的200% ≤200% of specified value	静电容量变化率 Capacitance change	初始值±20%以内 Within ±20% of initial value												
漏电流 Leakage current	≤规定值 ≤Specified value																		
损耗角正切值变化率 tanδ change	≤规定值的200% ≤200% of specified value																		
静电容量变化率 Capacitance change	初始值±20%以内 Within ±20% of initial value																		

	使用寿命 Useful Life	负荷寿命 Load Life	耐久性特性 Endurance Test	高温无负荷特性 Shelf Life
产品寿命 Life Time	5000h	>180000h	3000h	1000h
漏电流 Leakage Current	≤规定值 ≤Specified value	≤规定值 ≤Specified value	≤规定值 ≤Specified value	≤规定值 ≤Specified value
损耗角正切值变化率 tanδ change	≤规定值的300% ≤300% of specified value	≤规定值的200% ≤200% of specified value	≤规定值的200% ≤200% of specified value	≤规定值的200% ≤200% of specified value
静电容量变化率 Capacitance Change	初始值±30%以内 Within ±30% of initial value	初始值±20%以内 Within ±20% of initial value	初始值±20%以内 Within ±20% of initial value	初始值±20%以内 Within ±20% of initial value
施加条件 Condition 施加电压 Applied Voltage 施加纹波电流 Applied Ripple Current 环境温度 Applied Temperature 失效率等级 Failure Rate Level	U _R I _R 105°C ≤1% Failure rate	U _R 1.6×I _R 40°C ≤1% Failure rate	U _R I _R 105°C 0%	U _R I _R 105°C 0% Back up to 20 °C and placed more than 24 hours. U _R to be applied for 60 min before measurement.

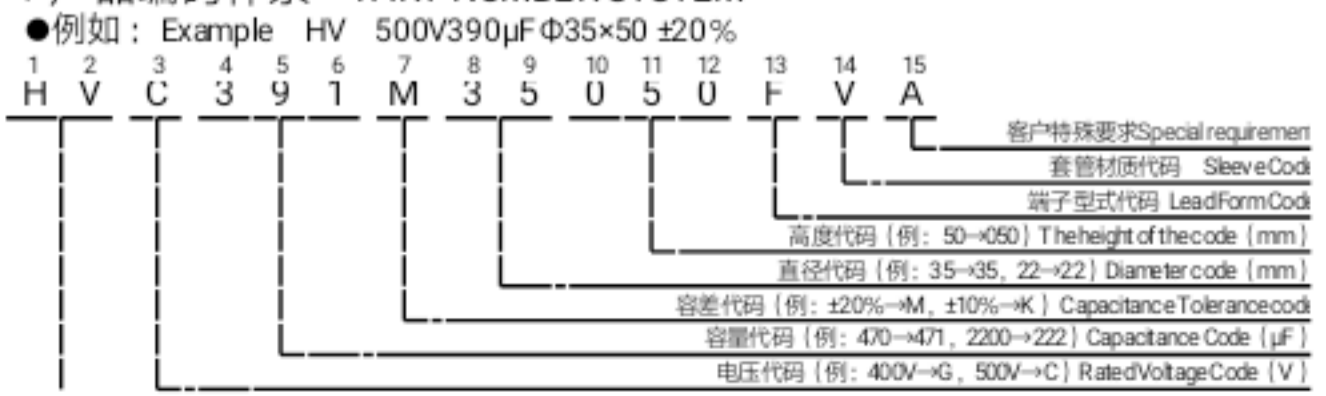
尺寸图 Dimensions

- 常用端子型式代码：Terminal Code



- 记载以外的端子形状, 请另行咨询。Please ask for advice for other sizes.

产品编码体系 PART NUMBER SYSTEM



纹波电流修正系数 Rated Ripple Current Multiplies

● 频率修正系数 Frequency coefficient

电压范围 (v) Rated voltage	频率 (Hz) Frequency	50 (60)	100 (120)	300	1k	≥10k
160 ~ 250V		0.81	1.00	1.17	1.32	1.45
315 ~ 500V		0.70	1.00	1.16	1.30	1.41

● 温度修正系数 Temperature coefficient

电压范围 (v) Rated voltage	温度 (°C) Temperature	+40	+55	+70	+85	+105
160 ~ 500V		2.7	2.5	2.1	1.7	1.0

HV 系列 SERIES

◆ 产品一览表 Standard Ratings

WV _{DC} (Surge Voltage) (V)	Cap (μ F)	Size DxL (mm)	tan δ 20°C/120Hz	Ripple Curr ent 105°C/120Hz (Arms)	Catalog Part Number	WV _{DC} (Surge Voltage) (V)	Cap (μ F)	Size DxL (mm)	tan δ 20°C/120Hz	Ripple Curr ent 105°C/120Hz (Arms)	Catalog Part Number	
160 (200)	330	22x25	0.15	1.25	HVN331M22025□VA	250 (300)	560	25x45	0.15	1.88	HVJ561M25045□VA	
	390	25x25	0.15	1.35	HVN391M25025□VA		560	30x35	0.15	1.86	HVJ561M30035□VA	
	470	22x35	0.15	1.48	HVN471M22035□VA		560	35x30	0.15	1.88	HVJ561M35030□VA	
	560	22x35	0.15	1.62	HVN561M22035□VA		680	25x50	0.15	2.30	HVJ681M25050□VA	
	560	25x30	0.15	1.62	HVN561M25030□VA		680	30x40	0.15	2.20	HVJ681M30040□VA	
	560	30x25	0.15	1.63	HVN561M30025□VA		820	30x45	0.15	2.40	HVJ821M30045□VA	
	680	22x40	0.15	1.85	HVN681M22040□VA		820	30x50	0.15	2.50	HVJ821M30050□VA	
	680	25x35	0.15	1.86	HVN681M25035□VA		1000	30x50	0.15	2.68	HVJ102M30050□VA	
	820	22x50	0.15	2.21	HVN821M22050□VA		1000	35x40	0.15	2.66	HVJ102M35040□VA	
	820	25x40	0.15	2.20	HVN821M25040□VA		1200	35x45	0.15	3.11	HVJ122M35045□VA	
	820	30x30	0.15	2.05	HVN821M30030□VA		1500	35x50	0.15	3.57	HVJ152M35050□VA	
	820	35x25	0.15	2.10	HVN821M35025□VA		315 (365)	150	22x30	0.15	0.86	HVI151M22030□VA
	1000	25x45	0.15	2.51	HVN102M25045□VA			180	22x35	0.15	0.98	HVI181M22035□VA
	1000	30x35	0.15	2.50	HVN102M30035□VA			180	25x30	0.15	0.97	HVI181M25030□VA
	1000	35x30	0.15	2.51	HVN102M35030□VA			220	22x40	0.15	1.10	HVI221M22040□VA
	1200	25x50	0.15	2.91	HVN122M25050□VA			220	30x25	0.15	1.05	HVI221M30025□VA
	1200	30x40	0.15	2.90	HVN122M30040□VA			270	22x45	0.15	1.27	HVI271M22045□VA
	1200	35x35	0.15	2.92	HVN122M35035□VA			270	25x35	0.15	1.21	HVI271M25035□VA
	1500	30x45	0.15	3.23	HVN152M30045□VA			330	22x50	0.15	1.43	HVI331M22050□VA
	1500	35x40	0.15	3.30	HVN152M35040□VA			330	25x40	0.15	1.40	HVI331M25040□VA
1800	35x45	0.15	3.70	HVN182M35045□VA	330	30x30		0.15	1.38	HVI331M30030□VA		
2200	35x50	0.15	4.10	HVN222M35050□VA	390	25x45		0.15	1.60	HVI391M25045□VA		
200 (250)	220	22x25	0.15	1.06	HML221M22025□VA	470		25x50	0.15	1.82	HVI471M25050□VA	
	270	22x25	0.15	1.15	HML271M22025□VA	470		30x40	0.15	1.81	HVI471M30040□VA	
	330	22x30	0.15	1.28	HML331M22030□VA	470		35x30	0.15	1.80	HVI471M35030□VA	
	330	25x25	0.15	1.25	HML331M25025□VA	560		30x45	0.15	2.02	HVI561M30045□VA	
	390	22x30	0.15	1.35	HML391M22030□VA	560		35x35	0.15	2.00	HVI561M35035□VA	
	470	22x35	0.15	1.55	HML471M22035□VA	680		30x50	0.15	2.26	HVI681M30050□VA	
	470	25x30	0.15	1.55	HML471M25030□VA	680		35x40	0.15	2.22	HVI681M35040□VA	
	470	30x25	0.15	1.60	HML471M30025□VA	820		35x45	0.15	2.57	HVI821M35045□VA	
	560	22x45	0.15	1.75	HML561M22045□VA	1000		35x50	0.15	2.91	HVI102M35050□VA	
	560	25x35	0.15	1.73	HML561M25035□VA	1200	35x60	0.15	3.25	HVI122M35060□VA		
	680	22x50	0.15	2.22	HML681M22050□VA	350 (400)	68	22x35	0.18	0.66	HVH680M22035□VA	
	680	25x40	0.15	2.21	HML681M25040□VA		100	22x30	0.18	0.76	HVH101M22030□VA	
	680	30x30	0.15	2.05	HML681M30030□VA		100	25x25	0.18	0.76	HVH101M25025□VA	
	680	35x25	0.15	2.10	HML681M35025□VA		120	22x35	0.18	0.80	HVH121M22035□VA	
	820	25x45	0.15	2.20	HML821M25045□VA		150	22x40	0.18	0.88	HVH151M22040□VA	
	820	30x35	0.15	2.17	HML821M30035□VA		150	25x30	0.18	0.86	HVH151M25030□VA	
	820	35x30	0.15	2.20	HML821M35030□VA		150	30x25	0.18	0.87	HVH151M30025□VA	
	1000	30x40	0.15	2.60	HML102M30040□VA		180	22x45	0.18	0.98	HVH181M22045□VA	
	1000	35x35	0.15	2.66	HML102M35035□VA		180	25x35	0.18	0.96	HVH181M25035□VA	
	1200	30x45	0.15	2.75	HML122M30045□VA		180	30x30	0.18	0.97	HVH181M30030□VA	
1200	35x40	0.15	2.90	HML122M35040□VA	220		22x50	0.18	1.11	HVH221M22050□VA		
1500	35x40	0.15	3.45	HML152M35040□VA	220		25x40	0.18	1.10	HVH221M25040□VA		
1800	35x45	0.15	4.00	HML182M35045□VA	220		35x25	0.18	1.10	HVH221M35025□VA		
2200	35x50	0.15	4.35	HML222M35050□VA	270		25x50	0.18	1.26	HVH271M25050□VA		
250 (300)	180	22x25	0.15	1.00	HVJ181M22025□VA		270	30x35	0.18	1.25	HVH271M30035□VA	
	220	22x30	0.15	1.13	HVJ221M22030□VA		270	35x30	0.18	1.26	HVH271M35030□VA	
	220	25x25	0.15	1.10	HVJ221M25025□VA		330	30x45	0.18	1.50	HVH331M30045□VA	
	270	22x35	0.15	1.20	HVJ271M22035□VA		330	35x35	0.18	1.48	HVH331M35035□VA	
	330	22x40	0.15	1.30	HVJ331M22040□VA		390	30x50	0.18	1.65	HVH391M30050□VA	
	330	25x30	0.15	1.35	HVJ331M25030□VA		390	35x40	0.18	1.62	HVH391M35040□VA	
	330	30x25	0.15	1.37	HVJ331M30025□VA	470	30x50	0.18	1.85	HVH471M30050□VA		
	390	22x45	0.15	1.45	HVJ391M22045□VA	470	35x45	0.18	1.86	HVH471M35045□VA		
	390	25x35	0.15	1.40	HVJ391M25035□VA	560	35x50	0.18	2.05	HVH561M35050□VA		
	470	22x50	0.15	1.65	HVJ471M22050□VA	680	35x50	0.18	2.30	HVH681M35050□VA		
	470	30x30	0.15	1.62	HVJ471M30030□VA	820	35x60	0.18	2.60	HVH821M35060□VA		
	470	35x25	0.15	1.63	HVJ471M35025□VA	1000	35x60	0.18	2.95	HVH102M35060□VA		

*产品编码中□内为产品端子引出型式代码
*Enter the appropriate terminal code

HV 系列 SERIES

◆ 产品一览表 Standard Ratings

WV _{DC} (Surge Voltage) (V)	Cap (μ F)	Size DxL (mm)	tan δ 20°C/120Hz	Ripple Curr ent 105°C/120Hz (A rms)	Catalog Part Number	
400 (450)	47	22x25	0.18	0.42	HVG470M22025□VA	
	68	22x25	0.18	0.50	HVG680M22025□VA	
	82	22x30	0.18	0.60	HVG820M22030□VA	
	82	25x25	0.18	0.59	HVG820M25025□VA	
	100	22x35	0.18	0.70	HVG101M22035□VA	
	100	25x25	0.18	0.65	HVG101M25025□VA	
	120	22x35	0.18	0.78	HVG121M22035□VA	
	120	25x30	0.18	0.77	HVG121M25030□VA	
	120	30x25	0.18	0.80	HVG121M30025□VA	
	150	22x40	0.18	0.91	HVG151M22040□VA	
	150	25x35	0.18	0.92	HVG151M25035□VA	
	150	30x25	0.18	0.88	HVG151M30025□VA	
	180	22x50	0.18	1.03	HVG181M22050□VA	
	180	25x40	0.18	1.00	HVG181M25040□VA	
	180	30x30	0.18	0.97	HVG181M30030□VA	
	180	35x25	0.18	0.98	HVG181M35025□VA	
	220	25x45	0.18	1.18	HVG221M25045□VA	
	220	30x35	0.18	1.16	HVG221M30035□VA	
	220	35x30	0.18	1.18	HVG221M35030□VA	
	270	25x50	0.18	1.34	HVG271M25050□VA	
	270	30x40	0.18	1.33	HVG271M30040□VA	
	270	35x30	0.18	1.28	HVG271M35030□VA	
	330	30x45	0.18	1.53	HVG331M30045□VA	
	330	35x35	0.18	1.49	HVG331M35035□VA	
	390	30x50	0.18	1.69	HVG391M30050□VA	
	390	35x40	0.18	1.66	HVG391M30040□VA	
	470	30x50	0.18	1.89	HVG471M30050□VA	
	470	35x45	0.18	1.95	HVG471M35045□VA	
	560	35x50	0.18	2.14	HVG561M35050□VA	
	560	30x60	0.18	2.15	HVG561M30060□VA	
680	35x60	0.18	2.41	HVG681M35060□VA		
820	35x70	0.18	2.70	HVG821M35070□VA		
1000	35x60	0.18	3.04	HVG102M35060□VA		
450 (500)	68	22x30	0.20	0.56	HVE680M22030□VA	
	82	22x35	0.20	0.65	HVE820M22035□VA	
	100	22x35	0.20	0.69	HVE101M22035□VA	
	100	25x30	0.20	0.68	HVE101M25030□VA	
	100	30x25	0.20	0.71	HVE101M30025□VA	
	120	22x45	0.20	0.84	HVE121M22045□VA	
	120	25x35	0.20	0.81	HVE121M25035□VA	
	450 (500)	150	22x50	0.20	0.94	HVE151M22050□VA
150		25x40	0.20	0.91	HVE151M25040□VA	
150		30x30	0.20	0.89	HVE151M30030□VA	
150		35x25	0.20	0.90	HVE151M35025□VA	
180		25x45	0.20	1.07	HVE181M25045□VA	
180		30x35	0.20	1.05	HVE181M30035□VA	
220		25x50	0.20	1.25	HVE221M25050□VA	
220		30x40	0.20	1.24	HVE221M30040□VA	
220		35x30	0.20	1.19	HVE221M35030□VA	
270		30x45	0.20	1.41	HVE271M30045□VA	
270		35x35	0.20	1.37	HVE271M35035□VA	
330		30x50	0.20	1.53	HVE331M30050□VA	
330		35x40	0.20	1.50	HVE331M35040□VA	
330		35x30	0.20	1.34	HVE331M35030□VA	
390		35x45	0.20	1.73	HVE391M35045□VA	
470		35x50	0.20	1.98	HVE471M35050□VA	
470		30x60	0.20	1.99	HVE471M30060□VA	
560		35x60	0.20	2.23	HVE561M35060□VA	
680		35x70	0.20	2.65	HVE681M35070□VA	
500 (550)		100	22x45	0.20	0.82	HVC101M22045□VA
		100	25x40	0.20	0.82	HVC101M25040□VA
		100	30x30	0.20	0.82	HVC101M30030□VA
		120	22x50	0.20	0.91	HVC121M22050□VA
		120	25x40	0.20	0.89	HVC121M25040□VA
		120	30x35	0.20	0.93	HVC121M30035□VA
		120	35x30	0.20	0.91	HVC121M35030□VA
		150	25x45	0.20	1.01	HVC151M25045□VA
		150	30x40	0.20	1.05	HVC151M30040□VA
		150	35x35	0.20	1.08	HVC151M35035□VA
		180	25x50	0.20	1.06	HVC181M25050□VA
	180	30x45	0.20	1.11	HVC181M30045□VA	
	220	30x50	0.20	1.27	HVC221M30050□VA	
	220	35x40	0.20	1.24	HVC221M35040□VA	
	270	30x50	0.20	1.46	HVC271M30050□VA	
	270	35x40	0.20	1.43	HVC271M35040□VA	
	330	35x45	0.20	1.61	HVC331M35045□VA	
	390	35x50	0.20	1.79	HVC391M35050□VA	
	470	35x60	0.20	2.04	HVC471M35060□VA	
	560	35x70	0.20	2.38	HVC561M35070□VA	

*产品编码中□内为产品端子引出型式代码
*□ Enter the appropriate terminal code

*记载之外的体积，请另行咨询。
*Please ask for advice for other sizes.

*铝电解电容器由于承受纹波电流而发热，随着温升而发生性能劣化。请在使用中降低产品承受的纹波电流。
*Aluminum electrolytic capacitor will emit heat when ripple current is applied, the performance will deteriorate when temp. rises. Please reduce the ripple current when using capacitor.