



Aluminum Electrolytic Capacitors **HP** Series

Features

- PCB Snap-In type 105°C
- Directly mountable on printed circuit board without holders.
- Terminal spacing fixed at 10mm for pc board plug in.

Specification

Items	Performance															
Capacitance Tolerance	$\pm 20\%$ (at 120Hz, 25 °C)															
Rated Voltage Range	16 to 100 VDC							160 to 450 VDC								
Capacitance Range	470 to 47000 uF							330 to 2200 uF								
Operating Temperature Range	-40 to + 105							-25 to 105								
Leakage Current (at 25°C)	$I \leq 0.03 CV$ or $8\mu A$, whichever is greater.															
	After 5 minutes application of working voltage. I= Leakage current (uA), C= Rated capacitance (uF), V= Rated voltage (V)															
Dissipation Factor (Tan δ at 120Hz, 25°C)	Rate Voltage	10	16	25	35	50	63	100	160	200	250	350	400	450		
	tan δ (max)	0.55	0.45	0.35	0.30	0.25	0.20	0.15	0.15	0.15	0.15	0.15	0.15	0.15		
Low Temperature characteristics (at 120Hz)	Impedance ration shall not exceed the values given in the table below.															
	Rate Voltage	10	16	25	35	50	63	100	160	200	250	350	400	450		
	-25°C/25°C	4	4	3	3	2	2	2	4	4	4	4	8	8		
	-40°C/25°C	15	15	10	8	6	6	5	4	8	10	16	18	20		
Load Life	After 2000 hours application of W.V. at 105 °C, the capacitor shall meet the followin limits.															
	Capacitance change : $\pm 25\%$ of initial value															
	Dissipation factor : 200% of initial specified value															
	Leakage Current : Initial specified value															
Shelf Life	After storage for 1000 hours at 105°C, with no voltage applied and being stabilixed at + 25 °C, Capacitor shall meet the limit specified in load life.															
Ripple Current & Frequency Multipliers	Freq.(Hz)															
	W.V.(V)	60 (50)			120			1K			10K			100K		
	Under 100	0.80			0.90			1.00			1.00			1.00		
	160 to 250	0.70			0.90			1.00			1.00			1.00		
350 to up	0.70			0.90			1.00			1.00			1.00			
Ripple Current & Temperature Multipliers	Temperature (°C)			85						105						
	Multiplier			1.20						0.90						
Standards	Satisfied Characteristic W of JIS C															

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HP Series

Dimension : D x L (mm)

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Ripple Current : A/rms at 120Hz,105

WV	uF	Case Size D x L (mm)	Ir (A)	WV	uF	Case Size D x L (mm)	Ir (A)	WV	uF	Case Size D x L (mm)	Ir (A)	WV	uF	Case Size D x L (mm)	Ir (A)				
200	330	22x30	0.80	250	220	22x30	0.45	350	100	22x30	0.30	400	47	22x26	0.15				
		25x25				25x25				25x25			68	22x26	0.20				
	470	22x40	1.00		330	22x40	0.80		150	22x40	0.40		100	22x35	0.30	150	22x40	0.40	
		25x30				25x30				25x30				25x30					
	680	25x40	1.20		470	22x50	1.00		220	25x40	0.50		150	22x40	0.40	220	25x45	0.60	
		30x30				25x40				30x40				30x40					
	1000	30x40	1.80		680	25x50	1.20		330	30x40	0.80		470	35x50	1.00	330	30x50	0.80	
		35x35				30x40				35x35				35x50			35x50		
	1500	35x50	2.30		1000	35x50	1.40									470	35x50	1.00	

WV	uF	Case Size D x L (mm)	Ir (A)
450	47	22x30	0.15
		25x25	
	68	22x36	0.2
		25x30	
	100	25x40	0.3
	150	25x48	0.5
		30x35	
	220	25x50	0.6
		30x48	
	330	30x53	0.8
470	35x58	1.2	