

# ALUMINUM ELECTROLYTIC CAPACITORS



# UAQ

Wide Temperature Range, Permissible Abnormal Voltage

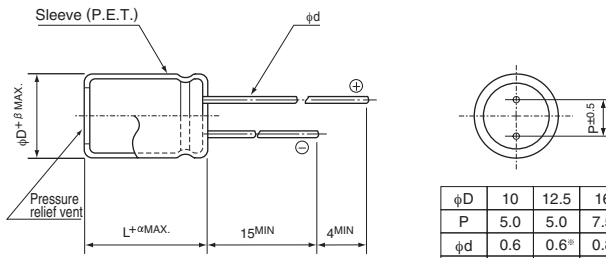
- Improved safety feature for abnormally excessive voltage.
- High ripple current product.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).



## Specifications

Item	Performance Characteristics			
Category Temperature Range	-40 to +105°C			
Rated Voltage Range	200 · 400V			
Rated Capacitance Range	10 to 220μF			
Capacitance Tolerance	±20% at 120Hz, 20°C			
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is 0.04CV+100 (μA) or less.			
Tangent of loss angle (tan δ)	Rated voltage (V)	200	400	
	tan δ (MAX.)	0.15	0.15	
Measurement frequency:120Hz at 20°C				
Stability at Low Temperature	Rated voltage (V)		200	400
	Impedance ratio (MAX.)	Z-25°C / Z+20°C	3	8
		Z-40°C / Z+20°C	6	10
Measurement frequency : 120Hz				
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 105°C, the peak voltage shall not exceed the rated voltage.		Capacitance change	Within ±20% of the initial capacitance value
			tan δ	200% or less than the initial specified value
			Leakage current	Less than or equal to the initial specified value
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.			
Safety Performance	The pressure relief vent will operate in normal conditions, with no dangerous conditions such as flames, ignitions or dispersion of pieces of the capacitor and / or case.			
	voltage (V)	Test conditions		
		Limited DC current	Test Voltage	
200	4A	300VDC and 375VDC		
400	2A	500VDC and 600VDC		
Marking	Printed with white color letter on dark brown sleeve.			

## Radial Lead Type



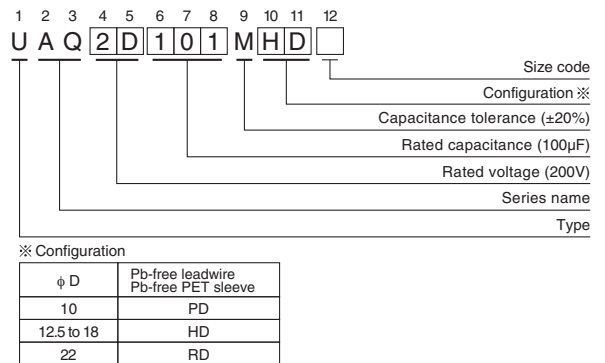
• Please refer to page 20 about the end seal configuration.

	(mm)				
φD	10	12.5	16	18	22
P	5.0	5.0	7.5	7.5	10
φd	0.6	0.6*	0.8	0.8	1.0
β	0.5	0.5	0.5	0.5	1.0

※ In case L>25 for φ12.5 (D) case sizes, lead diameter φ0.8 (d) will be applied.

α	(φD≤18) 2.0
	(φD>18) 3.0

Type numbering system (Example : 200V 100μF)



## Dimensions

Cap.(μF)	V(Code)	Code	200 (2D)					400 (2G)			
			φ10	φ12.5	φ16	φ18	φ22	φ12.5	φ16	φ18	φ22
10	100	100						12.5 × 20			
								100			
22	220	220	10 × 20					12.5 × 31.5	φ16 × 20		
			120					145	145		
33	330	330	10 × 25	φ12.5 × 20				12.5 × 40	φ16 × 25	φ18 × 20	
			160	160				195	195	195	
47	470	470	10 × 31.5	φ12.5 × 20				195	16 × 35.5	φ18 × 25	φ22 × 20
			195	195					280	280	280
56	560	560		12.5 × 25					16 × 35.5	φ18 × 31.5	φ22 × 25
				210					320	320	320
68	680	680		12.5 × 25					16 × 40	φ18 × 35.5	
				250					350	350	
82	820	820		12.5 × 31.5	φ16 × 20					18 × 40	
				285	285					420	
100	101	101		12.5 × 35.5	φ16 × 25	φ18 × 20					
				335	335	335					
150	151	151			16 × 31.5	φ18 × 25	φ22 × 20				
					435	435	435				
180	181	181			16 × 35.5	φ18 × 31.5	φ22 × 25				
					495	495	495				
220	221	221				18 × 35.5					
						575					

Rated ripple current (mArms) at 105°C 120Hz

## Frequency coefficient of rated ripple current

Frequency	50, 60Hz	120Hz	300Hz	1kHz	10kHz or more
Coefficient	0.80	1.00	1.25	1.40	1.60

- : In case of low profile type, [6] will be put at 12th digit of type numbering system.
- ※ : For further low profile product, [3] will be put at 12th digit.

Please refer to page 20, 21, 22 about the formed or taped product spec.

Please refer to page 4 for the minimum order quantity.