

# Aluminum Electrolytic Capacitors Screw Terminal Type

AES-XP Series

MERITEK

## FEATURE

- 5000 hours of load life at 105°C
- High ripple current capability
- High reliability design
- Operation temperature: -40°C ~ +105°C



## PART NUMBERING SYSTEM

AES   2V   122   M   B   075   XP  
(1)   (2)   (3)   (4)   (5)   (6)   (7)



No	Item	Code	Description	Reference
(1)	Meritek Series	AES	Aluminum Electrolytic Capacitor	Screw terminal type
(2)	Rated Voltage Code	2V	2V: 350V	2D:200V, 2E:250V ~ 2G:400V, 2W:450V
(3)	Capacitance	122	122: 1200μF	222: 2200μF
(4)	Tolerance	M	M: ±20%	-20% ~ +20% (M)
(5)	Case Code (Diameter)	B	B: 51mm	B: 51mm, C:64mm, D:77mm, E:90mm
(6)	Length	075	075: 75mm	075: 75mm ~ 236: 236mm
(7)	Internal Code	XP	5000 hours load life at 105°C	Product type reference

## ELECTRICAL CHARACTERISTICS

Item	Characteristic						
Operation Temperature	-40°C ~ +105°C						
Rated Working Voltage	200 ~ 450VDC						
Capacitance at 120Hz 20°C	680 ~ 33000μF						
Capacitance Tolerance at 120Hz 20°C	±20%(M)						
Max ripple Current at 120Hz 85°C	2.41 ~ 23.88Arms						
Leakage Current at 20°C	I ≤ 0.02CV or 5 mA whichever is smaller after 5 minutes				I : Leakage Current(μA) C : Rated Capacitance(μF) V : Working Voltage(V)		
Surge Voltage at 20°C	Working Voltage	W.V. (VDC)	200	250	350	400	450
	Surge Voltage	S.V. (VDC)	250	300	400	450	500
Dissipation Factor (tan δ) at 120Hz 20°C	W.V. (VDC)	200	250	350	400	450	
	tan δ	0.20	0.20	0.15	0.15	0.15	
Low Temperature Stability Impedance ratio at 120Hz	8				Rated Voltage 350 ~ 450 (VDC)		
					-25°C / +20°C		
Load Life	Capacitance Change	≤ ±20% of initial value			After 5000 hours application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage)		
	Dissipation Factor	≤200% of initial specified value					
	Leakage Current	≤ initial specified value					
Shelf Life	At +105°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)						

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## CASE SIZES AND MAX RIPPLE CURRENT

Rated Voltage		200Vdc (2D)		250Vdc (2E)		350Vdc (2V)	
Capacitance (μF)	Code	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)
680	681	-	-	-	-	-	-
1000	102	-	-	-	-	51x75	3.06
1200	122	-	-	-	-	51x75	3.35
1500	152	-	-	51x80	2.41	51x96	4.17
1800	182	-	-	-	-	51x96	4.57
2200	222	51x80	2.92	51x100	3.21	51x130	5.78
2700	272	-	-	-	-	64x96	6.00
3300	332	51x100	3.94	64x100	4.47	64x115	7.18
3900	392	-	-	-	-	64x130	8.24
4700	472	64x100	5.13	64x121	5.80	64x155	9.79
						77x115	8.95
5600	562	-	-	-	-	64x195	11.87
						77x130	10.30
6800	682	64x121	6.71	77x121	7.15	77x155	12.27
8200	822	-	-	-	-	90x157	13.86
10000	103	77x121	8.31	90x145	9.39	90x157	15.31
12000	123	-	-	-	-	90x196	18.50
15000	153	77x144	10.98	90x171	12.36	90x236	22.50
22000	223	90x145	11.40	90x236	17.30	-	-
33000	333	90x236	17.34	-	-	-	-

Rated Voltage		400Vdc (2G)		450Vdc (2W)	
Capacitance (μF)	Code	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)
1000	102	51x75	3.40	51x96	4.25
1200	122	51x96	4.14	51x115	5.05
1500	152	51x115	5.02	51x130	5.97
1800	182	51x130	5.81	64x96	6.20
2200	222	51x130	6.43	64x115	7.41
		64x96	6.22		
2700	272	64x115	7.45	64x130	8.67
				77x115	8.69
3300	332	64x130	8.69	64x155	10.37
				77x130	10.14
3900	392	64x155	10.23	64x195	12.53
		77x115	9.18		
4700	472	64x195	12.47	77x155	13.07
		77x130	10.62		
5600	562	64x195	13.61	77x195	15.82
		77x155	12.53	90x157	14.89
6800	682	90x157	14.73	90x196	18.10
8200	822	90x157	16.17	90x196	19.88
10000	103	90x196	19.70	90x236	23.88
12000	123	90x236	23.48	-	-

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## DIMENSIONS

$\phi D$	W1	W2	W3	W4	W5	P
51	32.5	37.5	4.5	7.0	13.0	22.0
64	38.5	42.8	4.5	7.0	13.0	28.5
77	44.8	49.0	4.5	7.0	13.0	32.0
90	52.3	58.8	5.0	8.0	16.0	32.0

Unit: mm

Frequency (Hz)	60	120	300	1K	$\geq 10K$
Multiplier	0.70	1.00	1.10	1.30	1.40

Temperature	40°C	60°C	85°C	105°C
Multiplier	2.44	2.16	2.00	1.00

