

Aluminum Electrolytic Capacitors Screw Terminal Type

AES-QP Series

MERITEK

FEATURE

- 2000 hours of load life at 105°C
- High ripple current capability
- High reliability design
- Operation temperature: -25°C ~ +105°C



PART NUMBERING SYSTEM

AES 2E 332 M B 075 QP
(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	2E	2E: 250V	2C: 160V, 2D:200V ~ 2W: 450V, 2H: 500V
(3)	Capacitance	332	332: 3300μF	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	QP	2000 hours load life at 105°C	Product type reference

ELECTRICAL CHARACTERISTICS

Item	Characteristic								
Operation Temperature	-25°C ~ +105°C								
Rated Working Voltage	160 ~ 500VDC								
Capacitance at 120Hz 20°C	820 ~ 22000μF								
Capacitance Tolerance at 120Hz 20°C	±20%(M)								
Max ripple Current at 120Hz 85°C	3.86 ~ 22.52Arms								
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)	160	200	250	350	400	450	500
	Surge Voltage	S.V. (VDC)	200	250	300	400	450	500	550
Dissipation Factor (tan δ) at 120Hz 20°C	W.V. (VDC)	350	160	200	250	350	400	450	450
	tan δ	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20
Low Temperature Stability Impedance ratio at 120Hz	8					Rated Voltage 160 ~ 500 (VDC)			
	-25°C / +20°C								
Load Life	Capacitance Change	≤ ±20% of initial value				After 2000 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		160Vdc (2C)		200Vdc (2D)		250Vdc (2E)	
Capacitance (μF)	Code	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)
2200	222	-	-	-	-	51x75	4.53
2700	272	-	-	-	-	-	-
3300	332	-	-	51x80	5.23	51x96	6.18
3900	392	-	-	-	-	64x96	6.69
4700	472	51x80	6.81	51x96	6.76	64x115	7.94
5600	562	51x96	8.05	64x96	7.99	77x96	8.91
6800	682	64x96	8.80	64x115	9.52	77x115	10.60
8200	822	64x96	9.66	77x96	10.27	77x130	12.27
10000	103	77x96	11.34	77x115	12.24	77x155	14.65
15000	153	77x130	15.81	90x131	16.47	90x157	17.81
22000	223	90x131	19.87	-	-	-	-

Rated Voltage		350Vdc (2V)		400Vdc (2G)		450Vdc (2W)	
Capacitance (μF)	Code	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)	DxL (mm)	RC (Arms)
1000	102	51x75	4.08	51x75	4.08	51x96	4.54
1200	122	51x75	4.47	51x96	4.97	51x115	5.39
1500	152	51x96	5.56	51x96	5.56	51x115	6.02
1800	182	51x96	6.09	-	-	-	-
2200	222	51x115	7.29	64x96	7.65	64x115	8.28
2700	272	64x96	8.48	-	-	-	-
3300	332	64x115	10.13	64x130	10.70	64x130	10.70
3900	392	64x115	11.02	64x155	12.59	77x121	12.50
4700	472	64x130	12.77	77x130	14.16	77x144	14.81
5600	562	77x130	15.46	77x155	16.70	90x145	15.49
6800	682	77x130	17.03	90x157	16.83	90x196	19.50
8200	822	77x155	18.11	90x157	18.48	90x196	21.41
10000	103	90x157	21.94	90x196	22.52	-	-

Rated Voltage		500Vdc (2H)	
Capacitance (μF)	Code	DxL (mm)	RC (Arms)
820	821	51x115	3.86
1000	102	51x130	4.50
		64x96	4.37
1200	122	64x115	5.18
1500	152	64x130	6.12
		77x96	5.66
1800	182	77x115	6.69
2700	272	77x155	9.33
3900	392	90x157	11.70
6800	682	90x236	18.54

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DIMENSIONS

ϕD	W1	W2	W3	W4	W5	P
51	32.5	37.5	4.5	7.0	13.0	22.20
64	38.5	42.8	4.5	7.0	13.0	28.54
77	44.8	49.0	4.5	7.0	13.0	31.80
90	52.3	58.8	5.0	8.0	16.0	31.62

Unit: mm

RIPPLE CURRENT COEFFICIENTS

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

