

To: Customer	MT system	Issue Date	2019/9/9
		Spec NO.	MES005964

APPROVAL SHEET



Commodity	ALUMINUM ELECTROLYTIC CAPACITORS
Our part no.	A-Z331HS2G-30040MV
Catalog type	HS 400V330uF Φ30×L40
Customerpart no.	
Ideally suited	
Notes	

DESIGNED	CHECKED	APPROVED
呂姿儀	陳明宗	高良民

Customer

APPROVAL NO: _____

(Confirm) _____ Y _____ M _____ D Confirm

DESIGNED	CHECKED	APPROVED



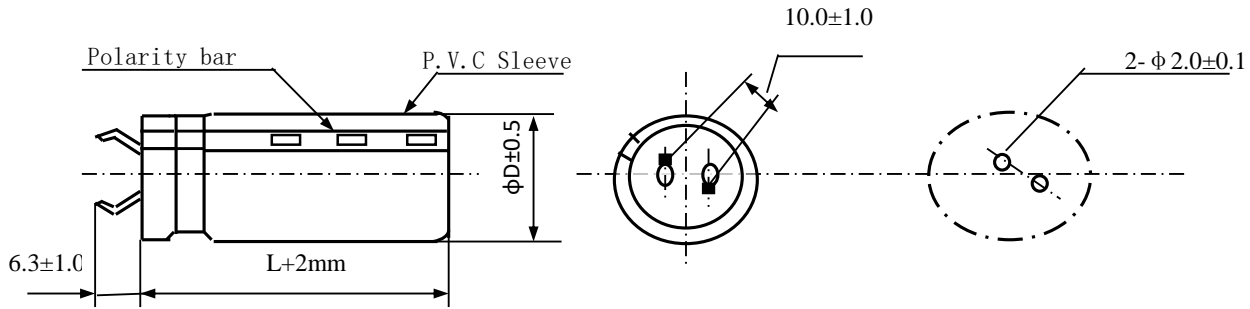
Version Change History

Rev.	Description of Change		Changed Date	Handled By
Version	Before	After		
A0	First Version	/	2019/9/9	张山红



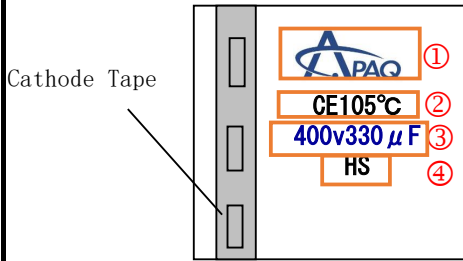
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 APAQ TECHNOLOGY CO., LTD

ALUMINIUM ELECTROLYTIC CAPACITORS SPECIFICATIONS



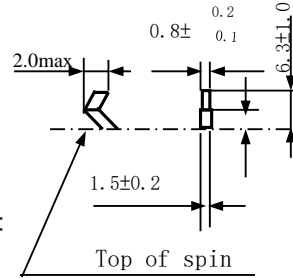
Snap-in Terminal Type

MARKING:



The following items shall be marked on each capacitor, as showed above:

- ①: Brand
- ②: Working temperature
- ③: Rated voltage & capacitance
- ④: Series



● Frequency coefficient factor for ripple current

Frequency (HZ)		50 (60)	120	500	1K	10K ≤
Coefficient	10~100WV	0.90	1.00	1.05	1.10	1.15
	160~250WV	0.80	1.00	1.20	1.30	1.50
	315~450WV	0.80	1.00	1.20	1.25	1.40

P/N: **A-Z331HS2G-30040MV**

Temperature range : **-25~ + 105 °C**

ELECTRICAL CHARACTERISTICS

WORKING VOLTAGE (V. DC)	SURGE VOLTAGE (V. DC)	RATED CAP. (μF)	CAP. TOLERANCE (%)	TAN δ (MAX)	LEAKAGE CURRENT (μA MAX.)	RIPPLE CURRENT (A r.m.s MAX.)	STANDARD SIZE (φD×L)	Z-25°C/ Z20°C (120Hz)
400	450	330	-20~+20%	0.15	1089.95	1.44	Φ30×L40	8 MAX
at 120Hz 20°C					after 5min	120Hz 105°C		
Load Life		After 3000 hours application of rated voltage at 105°C						
		Capacitance Change			Within ±20% of the initial value			
		Dissipation Factor			Not more than 200% of the specified value			
		Leakage Current			Not more than the specified value			
Shelf Life		After storage for 1000 hours at +105°C with no voltage applied , the capacitor shall meet the specified limits for "Load Life"						

DESIGNED	CHECKED
张山红	何浩



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CONTENTS OF QUNLITY

1. TEST STANDARD:

JIS C 5141-1991

JIS C 5102

GB 5993-91

2. CHARACTERISTICS:

No	ITEMS	CONDITIONS	SPECIFICATIONS	NOTE
2.1	温度特性 TEMPERATURE CHARACTERISTIC	THE RATIO OF IMPEDANCE MEASURED AT $20^{\circ}\text{C}\pm 2^{\circ}\text{C}$ TO INPEDANCE MEASURED AT $-25^{\circ}\text{C}\pm \begin{matrix} 0 \\ 3 \end{matrix}^{\circ}\text{C}$	315~450VDC: Z-25°C/Z20°C=8 MAX	
2.2	RESISTANCE OF DUMP HEAT (STEADY STATE)	TEST TEMPERATURE RELATIVE HUMIDITY TEST TIME	VALIATION OF CAPACITANCE: WITHIN $\pm 10\%$ OF THE VALUE BEFOR TEST DISSIPATION FACTOR: NOT MORE THAN THE SPECIFIED VALUE LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE APPEARANCE: NO REMARKABLE ABNORMARITY	
2.3	STORAGE AT LOW TEMPERATURE	* Test Temperature: $-40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ * Test Time: $500\pm \begin{matrix} 24 \\ 0 \end{matrix}$ h THE CAPACITORS SHALL THEN BE R- EMOVED FROM THE CHAMBER AND ST- ABILIZED AT ROOM TEMPERATURE FOR 2 hrs. AFTER.	VALIATION OF CAPACITANCE: WITHIN $\pm 10\%$ OF THE VALUE BEFOR TEST DISSIPATION FACTOR: NOT MORE THAN THE SPECIFIED VALUE LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE APPEARANCE: NO REMARKABLE ABNORMARITY	



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CONTENTS OF QUNLITY

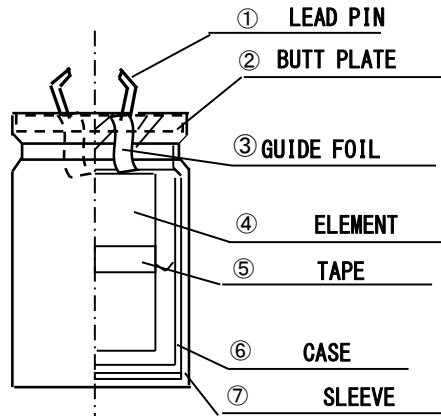
No.	ITEMS	CONDITIONS	SPECIFICATIONS	NOTE
2.4	LIFE TEST	<p>* Test Temperature: +105°C±2°C</p> <p>* Test Time: 3000HR</p> <p>APPLIED VOLTAGE: IN THE RANGE OF RATED DC VOLTAGE EVEN AFTER OVER-LAPPING THE SPECIFIED RIPPLE CURRENT</p> <p>MAXIMUMPERMISSIBLE RIPPLE CURRENT</p>	<p>VALIATION OF CAPACITANCE:WITHIN ±20% OF THE VALUE BEFOR TEST</p> <p>DISSIPATION FACTOR: NOT MORE THAN 200% OF THE SPECIFIED VALUE</p> <p>LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE</p> <p>APPEARANCE: NO REMARKABLE ABNORMARITY</p>	
2.5	SELFE LIFE TEST	<p>* Test Temperature: +105°C±2°C</p> <p>*Test Time: $1000 \pm \frac{48}{0}$ HR</p> <p>CONDITIONINC:FOLLOWING THIS PER- IOD THE CAPACITORS SHALL BE REM- OVED FROM THE TEST CHAMBAR AND BE ALLOWED TO STABILIZE AT ROOM TEMPERATURE .NEXT THEY SHALL BE CONNECTED TO A SERIES LIMITING RESISTOR(1KΩ) WITH DC. RATED VOLTAGE APPLIED FOR 30min. AFTER WHICH THE CAPACITORS SHALL BE DISCHARGED.</p>	<p>VALIATION OF CAPACITANCE:WITHIN ±20% OF THE VALUE BEFOR TEST</p> <p>DISSIPATION FACTOR: NOT MORE THAN 200% OF THE SPECIFIED VALUE</p> <p>LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE</p> <p>APPEARANCE: NO REMARKABLE ABNORMARITY</p>	
2.60	OTHER	JIS C 5141 OR GB 5993-91		



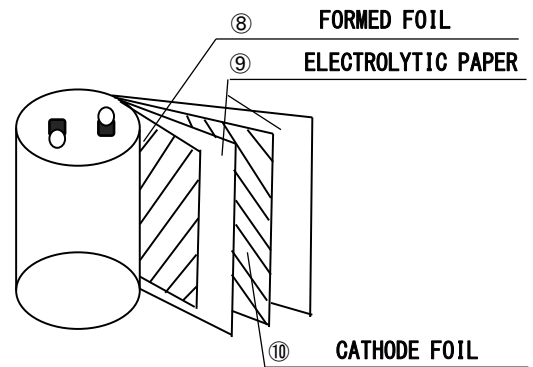
CONTENTS OF QUNLITY

(THE INSIDE OF THE CAPACITOR'S STRUCTURE FIG AND MATERIAL LIST)

【THE CAPACITOR'S STRUCTURE FIG】：



【THE ELEMENT FIG】：



MATERIAL AND VENDOR LIST

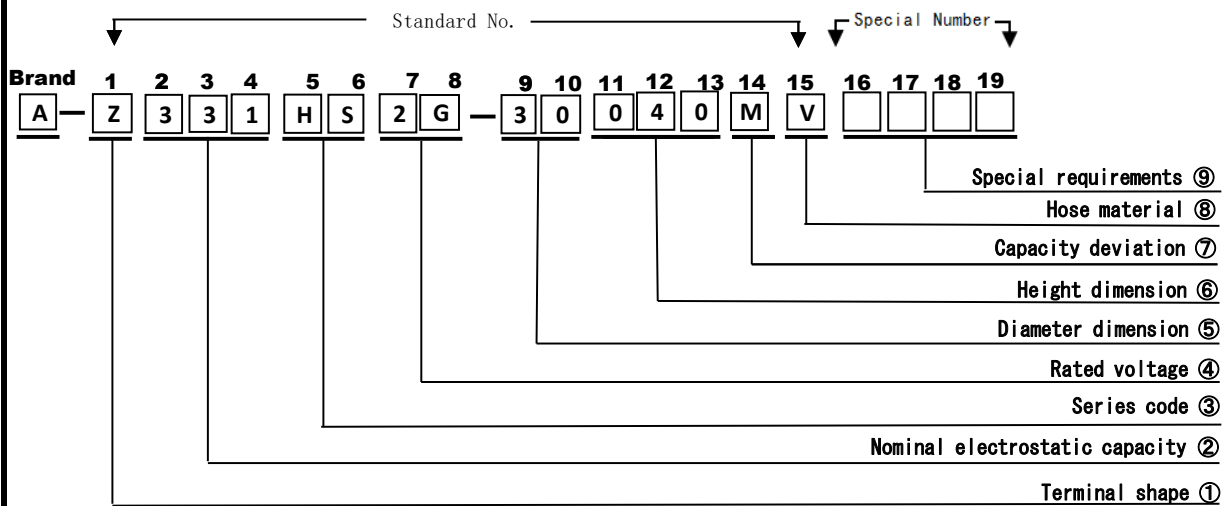
No	NAME	MATERIAL	NOTE
1	LEAD PIN	TINNED COPPER	Tinned Copper
2	BUTT PLATE	PHENOLIC RESIN	Seal
3	GUIDE FOIL	ALUMINUM	PURE \geq 99.99%
4	Element	Element	Foil & Electrolytic Paper
5	TAPE	POLYPROPYLENE	Fixed Element
6	CASE	ALUMINUM	PURE \geq 99.0%
7	SLEEVE	PVC SLEEVE	Sleeve
8	FORMED FOIL	ALUMINUM	PURE \geq 99.99%
9	ELECTROLYTIC PAPER	Synthetic Paper	Synthetic Paper
10	CATHODE FOIL	ALUMINUM	PURE \geq 99.7% Upper
11	Electrolyte	Mixture	Mixture



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品号的构成

PART NUMBERING SYSTEM



① Terminal shape

Terminal shape	Mark	
	1	
Lead type	A	
Pin type	Z	
Four-pin type	T	
Sheet type	P	
Bolt type	S	
v-chip	V	
Axial extraction	B	

③ Series code

Series	Mark		
	5	6	
FA	F	A	
FD	F	D	
FM	F	M	
YK	Y	K	
RVT	R	V	T
HT	H	T	
HM	H	M	
SC	S	C	

⑨ Special requirements

Request	Mark			
	16	17	18	19
CUT3.0mm	C	3	0	0
CUT3.2mm	C	3	R	2
CUT6.0mm	C	6	0	0
CUT12mm	C	1	2	0
TP2.5mm	T	2	R	5
TP5.0mm	T	5	0	0
Impedance800mΩ	8	0		
Surge protection	F	L	J	-

② Static capacity

CAP (uF)	Mark		
	2	3	4
0.47	R	4	7
1	0	1	0
2.2	2	R	2
3.3	3	R	3
4.7	4	R	7
6.8	6	R	8
5.6	5	R	6
10	1	0	0
12	1	2	0
22	2	2	0
33	3	3	0
47	4	7	0
68	6	8	0
100	1	0	1
220	2	2	1
330	3	3	1
560	5	6	1
680	6	8	1
1000	1	0	2
2700	2	7	2
3300	3	3	2
4700	4	7	2
6800	6	8	2
10000	1	0	3
22000	2	2	3
33000	3	3	3
47000	4	7	3
68000	6	8	3

④ Rated voltage

WV (V)	Mark	
	7	8
4	0	G
6.3	0	J
10	1	A
16	1	C
25	1	E
35	1	V
50	1	H
63	1	J
80	1	K
100	2	A
120	1	2
110	2	Q
125	2	B
160	2	C
180	2	Z
200	2	D
220	2	P
250	2	E
315	2	F
350	2	V
400	2	G
420	W	6
450	2	W
500	2	H

⑤ Diameter dimension

Diameter (mm)	Mark	
	9	10
φ3	0	3
φ4	0	4
φ5	0	5
φ6.3	0	6
φ8	0	8
φ10	1	0
φ12.5	1	2
φ13	1	3
φ16	1	6
φ18	1	8
φ20	2	0
φ22	2	2
φ25	2	5
φ30	3	0
φ35	3	5

⑦ Capacity deviation

Capacity (%)	Mark
	14
±10	K
±20	M
+20~-10	V
+30~-10	Q
+50~-10	T
+20~0	A

⑥ Height dimension

Height t (mm)	Mark		
	11	12	13
5	0	0	5
7	0	0	7
9	0	0	9
11	0	1	1
11.5	1	1	M
12	0	1	2
12.5	1	2	M
14	0	1	4
15	0	1	5
16	0	1	6
17	0	1	7
18	0	1	8
20	0	2	0
25	0	2	5
30	0	3	0
35	0	3	5
40	0	4	0
45	0	4	5
50	0	5	0
55	0	5	5
62	0	6	2
70	0	7	0
80	0	8	0
100	1	0	0

⑧ Hose material

SLEEVE material	Mark
	15
PVC	V
PET	T

Brand	
Brand	Mark
APAQ	A
gather	NA

