承　认　书

APPROVAL SHEET

客　户： CUSTOMER	ROPLA	承认书编号： APP. NO.	**JSU003218100011-3**
系　列： SERIES	**KP**	使用温度范围： OPERATION TEMP.	**-25~+85℃**

凯美产品料号 JAMICON PART NO.：	客户产品料号 CUSTOMER PART NO.：
NKP229M400A2A5ZP6L Old PN: KPS223M2G31TM	

客 户 承 认 印 CUSTOMER'S APPROVAL STAMP	凯美电机股份有限公司(总部) KAIMEI ELECTRONIC CORP.(Headquarters) 凱美電機股份有限公司 14.OCT.2018 技術部	
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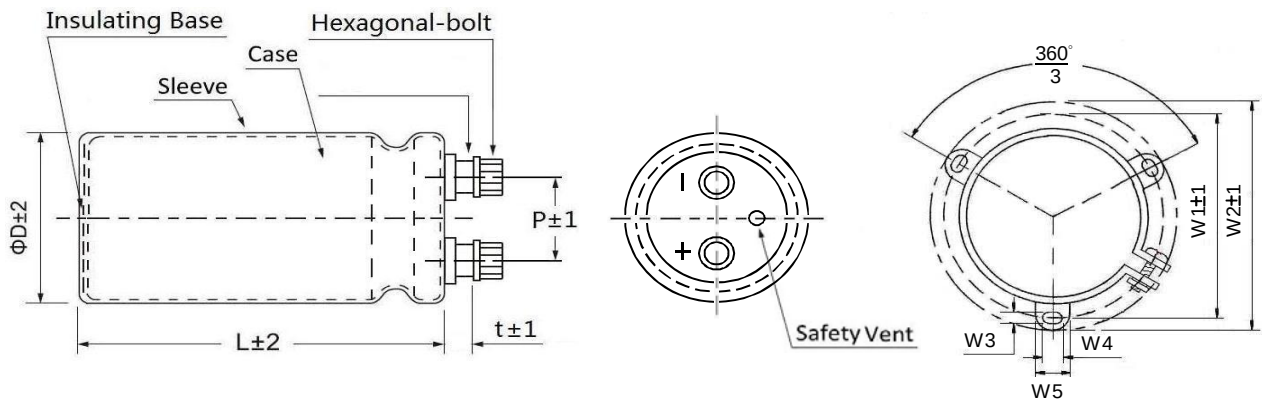
Parts number system		Reference standard	JIS C5101-4
NKP229M400A2A5ZP6L		Reted value	22000 μF 400 WV
DATA	2018/10/14	Dimensions	φ 90 × L 236 (mm)

1.Electrical characteristics

(A)Operating temperature range	:	−	25	～	+	85	℃	
(B)Capacitance tolerance	:	−	20	～	+	20	%	20℃ 120 Hz
(C)Capacitance	:			22000			μF	
(D)Rated working voltage (WV)	:			400			V	
(E)Surge voltage (SV)	:			450			V	
(F)Leakage current	:	≦		5000			μA	20℃ 5 min
(G)Dissipation Factor (tanδ)	:	≦		25			%	20℃ 120 Hz
(H)Ripple current	:	≦		31.51			A	85℃ 120 Hz

2.Dimensions and materials



φ	P	t	Hexagonal-bolt	W1	W2	W3	W4	W5
90	31.4	5.8	M5×0.8×10	101.6	111.1	4.5	7.0	14

※ Clamp enclosed and Hexagonal-bolt with box, not locked to cap body

3.Ripple current coefficients

Frequency (Hz)	60	120	1k	10k	100k
W.V.	Multlplier				
6.3～35V	0.90	1.00	1.05	1.10	1.10
50～100V	0.90	1.00	1.10	1.15	1.15
160～450V	0.80	1.00	1.20	1.40	1.40

Temperature (℃)	≦60	70	85
Multiplier	1.80	1.60	1.00

4.Load life test

The rated voltage shall be applied continuously to the capacitor at a temperature of +85℃ ripple current for 2000 hours, after 16 hours in room temperature, should do final measurements, the values are as following:
(DC + ripple peak voltage ≦ rate working voltage)

(A)Capacitance change : ≦ ± 15 % of initial value
(B)Dissipation factor : ≦ 175 % of initial specified value
(C)Leakage current : ≦ initial specified value

5.Shelf life test

The capacitor without rated voltage at a temperature of +85℃ for 1000 hours and then through the aging treatment (reference JIS C5101-4 4.1), should do final measurements, the values are as following :

(A)Capacitance change : ≦ ± 15 % of initial value
(B)Dissipation factor : ≦ 175 % of initial specified value
(C)Leakage current : ≦ initial specified value

6.Low temperature storage test

The capacitor without rated voltage at the lowest operation temperature 16 hours, after 16 hours in room temperature, should do final measurements, the values are as following :

(A)Capacitance change : ≦ ± 10 % of initial value
(B)Dissipation factor : ≦ initial specified value
(C)Leakage current : ≦ initial specified value

7.Low temperature stability

Impedance ratio at 120Hz

Z − 25 ℃ / Z + 20 ℃ : 8 (Max)

8.Surge test

The capacitor shall be applied the surge voltage connected with the 1 kΩ resistor in room temperature, and shall be applied the surge voltage 1000 cycle, each for 30 seconds charge and 5 minutes 30 seconds discharge, the final test values should be as following:

(A)Capacitance change : ≦ ± 15 % of initial value
(B)Dissipation factor : ≦ initial specified value
(C)Leakage current : ≦ initial specified value
(D)Visual : NO damage