

Customer : ALPS ELECTRIC EUROPA GmbH

No. F3861062M

Attention:

Your ref. No:

Your Part. No: STRK27102

Date: Nov. 18, 1994

# SPECIFICATIONS

ALPS:

MODEL RK27112A0  
(20kAX2)

Spec. No.:

Sample No. : F3861062M

RECEIPT STATUS

RECEIVED

By. Date

Signature

Name

Title

ALPS ELECTRIC CO., LTD.

HEAD OFFICE  
1-7, YUKIGAYA-OHTSUKA-CHO.  
OHTA-KU, TOKYO 145 JAPAN

DSG'D y. Saito

APP'D M. Saito

ENG. DEPT. DIVISION

Sales

## SPECIFICATIONS

1. THIS SPECIFICATIONS APPLY TO RK27112A0 POTENTIOMETERS.

2. CONTENTS OF THIS SPECIFICATIONS.

4K272A-200  
K272A000F

3. MARKING

·MARKING ON ALL UNITS  
DATE CODE, RESIST. VALUE, TAPER

4. REMARKS

·FURNISH PACKAGE  
NUT: 1, WASHER: 1  
·NOTES

·Silver printed patterns are coated with carbon as a protection against sulphur-  
ation.  
·Marking ⇒ in specifications shows standard and condition for application.

CLASS NO.	TITLE																
	<b>SPECIFICATIONS</b>																
<b>ELECTRICAL</b>	<b>20 kΩ (10kΩ ± 20%)</b>																
<p>1. Total resistance tolerance: Nominal ± 20%</p> <p>2. Rated voltage : 30V A.C. This potentiometer is designed for A.C. voltage only.</p> <p>3. Resistance taper: See taper figure</p> <p>4. Maximum attenuation level on full C.C.V. position:</p> <table border="1"> <thead> <tr> <th>Nominal total resistance value</th> <th>Max. att. level</th> </tr> </thead> <tbody> <tr> <td><math>R_a \geq 100 \text{ k}\Omega</math></td> <td>10dB min.</td> </tr> <tr> <td><math>100 \text{ k}\Omega &gt; R_a \geq 50 \text{ k}\Omega</math></td> <td>9dB min.</td> </tr> <tr> <td><math>50 \text{ k}\Omega &gt; R_a \geq 10 \text{ k}\Omega</math></td> <td>8dB min.</td> </tr> </tbody> </table> <p>5. Insertion loss on full C.V. position: 0.1dB max.</p> <p>6. Slider noise: less than 47dB (by method of JIS C 6443)</p> <p>7. Insulation resistance: 100MΩ min. at 500V D.C.</p> <p>8. Dielectric strength: Units shall be designed to withstand 500V A.C. 50Hz R.M.S. between resistance element and case for a period of one minute without damage or arcing</p> <p>9. Gang error :</p> <table border="1"> <thead> <tr> <th>Nominal total resistance value</th> <th>Gang error</th> </tr> </thead> <tbody> <tr> <td><math>R \geq 50 \text{ k}\Omega</math></td> <td>3 dB max. between -70 less than -60 dB 2 dB max. between -60 ~ 0 dB</td> </tr> <tr> <td><math>50 \text{ k}\Omega &gt; R \geq 20 \text{ k}\Omega</math></td> <td>3 dB max. between -60 less than -40 dB 2 dB max. between -40 ~ 0 dB</td> </tr> <tr> <td><math>20 \text{ k}\Omega &gt; R \geq 10 \text{ k}\Omega</math></td> <td>3 dB max. between -60 ~ 0 dB</td> </tr> </tbody> </table> <p>Measure between R1&amp;R2  <math display="block">\left( \frac{\text{term 1-2 output V}}{\text{term 1-3 in out V}} \right)</math></p>		Nominal total resistance value	Max. att. level	$R_a \geq 100 \text{ k}\Omega$	10dB min.	$100 \text{ k}\Omega > R_a \geq 50 \text{ k}\Omega$	9dB min.	$50 \text{ k}\Omega > R_a \geq 10 \text{ k}\Omega$	8dB min.	Nominal total resistance value	Gang error	$R \geq 50 \text{ k}\Omega$	3 dB max. between -70 less than -60 dB 2 dB max. between -60 ~ 0 dB	$50 \text{ k}\Omega > R \geq 20 \text{ k}\Omega$	3 dB max. between -60 less than -40 dB 2 dB max. between -40 ~ 0 dB	$20 \text{ k}\Omega > R \geq 10 \text{ k}\Omega$	3 dB max. between -60 ~ 0 dB
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	<b>SPECIFICATIONS</b>
<b>MECHANICAL</b>	
<p>1. Total rotation angle: <math>300^\circ \pm 3^\circ</math></p> <p>2. Operation torque: 80~350gf·cm (Rotational speed at 60°/sec., at 20°C)</p> <p>3. Shaft end stop strength: 8kgf·cm min.</p> <p>4. Resistance to soldering heat: After soldering (less than 350°C and quicker than 5 seconds) there shall be no evidence of poor contact between resistance element and terminals, or any physical damages as a result of the test</p> <p>5. Bushing nut tightening strength:          * Tightening torque to be no greater than 15 kgf·cm.          * Pay attention otherwise the strength may not be assured.</p> <p>6. Shaft push / pull strength:          No damages with an application of push or pull force 10kgf for 10 seconds</p>	
<b>ENDURANCE</b>	
1. Rotational life: 15,000 cycles min.	
<b>NOTE</b>	
1. The items except above mentioned items shall meet or exceed JIS C 6443.	

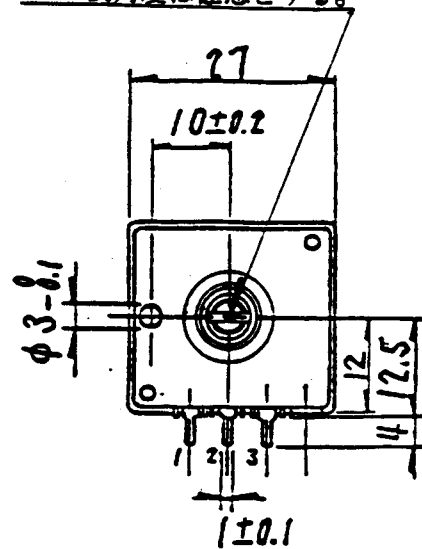
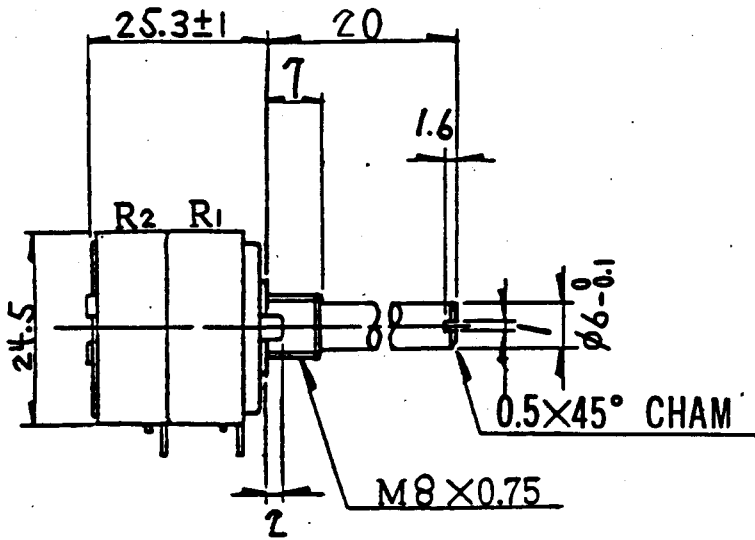
**ALPS ELECTRIC CO., LTD.**

APPD.	CHKD.	DSCD.	TITLE
Oct. 2 '93	Dec. 1 '93	Nov. 19 '93	
K.S.	T.Y.S.S.	CHKD.	DSCD.
DATE	DATE	DATE	DATE
Doc. No. 4K272A-200	Doc. No. 4K272A-200	Doc. No. 4K272A-200	Doc. No. 4K272A-200



SHAFT SLOT IS OPTIONAL ANGLE

スリ割角度は任意とする。



P.W.B.MOUNTING DETAIL

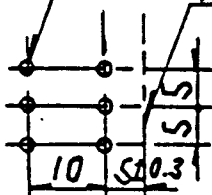
TOLERANCE ± 0.1  
VIEWED FROM MOUNTING SIDE

取付穴寸法図

許容差±0.1 (挿入側より)

6-φ1.2<sup>+0.2</sup> HOLES

取付面 MOUNTING SURFACE



許容差の指定なき寸法の公差	
TOLERANCES UNLESS OTHERWISE SPEC	
BASIC DIMENSIONS	TOLERANCE
L ≤ 10	± 0.3
10 < L < 100	± 0.5
100 ≤ L	± 0.8
角座, ANGULAR DIMENSION	± 5°

部	番	名	称	材	料	規	格	処	理
								22.68	3H21A4
			三角法	単位 mm	尺度				
			承認 W設1	照査 W設1	設計 W設1				
			56.4.22	56.4.22	56.4.21				
			大倉	大倉	佐々木				
記号	年月日	承認	照査	設計	図名	1軸2連小型デイトントVR組立図			
					図番	-K272A000F			

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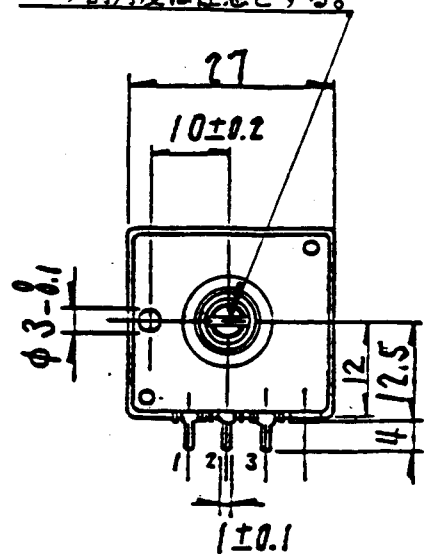
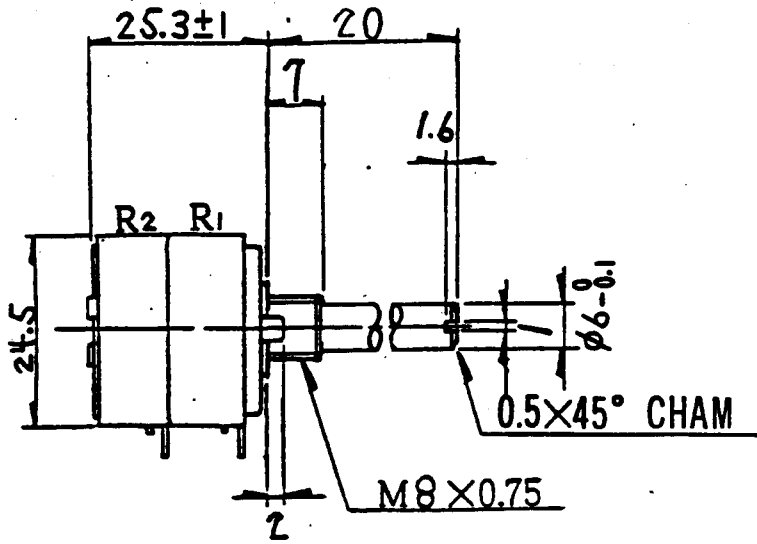






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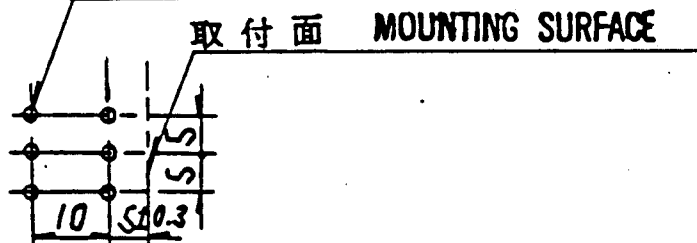
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TOLERANCE ± 0.1  
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許容差±0.1 (挿入側より)

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