

Customer : ALPS ELECTRIC EUROPA GmbH

No. F3861062M

Date : Nov. 18, 1994

Attention:

Your ref. No:

Your Part. No: STRK2102 21 1133 FARNELL

# SPECIFICATIONS

ALPS :

MODEL          RK27111220K         

Spec. No. :                                 

Sample No. : F3861062M                         

RECEIPT STATUS

RECEIVED

By          Date                                 

Signature   

Name   

Title   

ALPS ELECTRIC CO., LTD.

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

DSG'D y. Saito

APP'D M. Saito

ENG. DEPT. DIVISION

Sales

N o. F3861062M

3SPECIFICATIONS

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

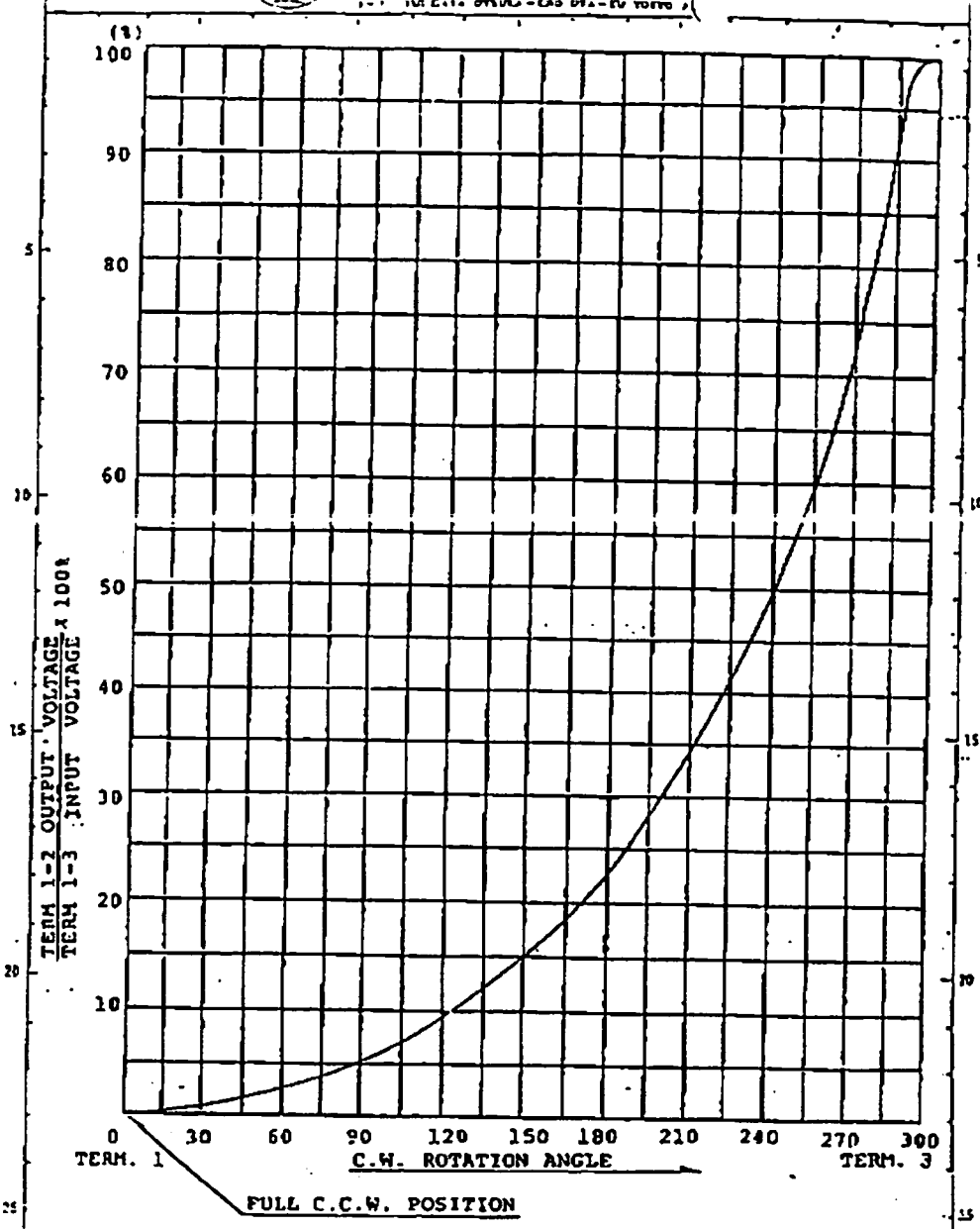
4. REMARKS

-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</b> <b>(10K05R±2MD)</b>									
1. Total resistance tolerance: Nominal ±20% 2. Rated voltage: 30V A.C. This potentiometer is designed for A.C. voltage only. 3. Resistance taper: See taper figure 4. Maximum attenuation level on full C.V. position:									
<table border="1"> <thead> <tr> <th>Nominal total resistance value</th> <th>Max. att. level</th> </tr> </thead> <tbody> <tr> <td><math>R \geq 100k\Omega</math></td> <td>100dB min.</td> </tr> <tr> <td><math>100k\Omega &gt; R \geq 50k\Omega</math></td> <td>80dB min.</td> </tr> <tr> <td><math>50k\Omega &gt; R \geq 10k\Omega</math></td> <td>60dB min.</td> </tr> </tbody> </table>		Nominal total resistance value	Max. att. level	$R \geq 100k\Omega$	100dB min.	$100k\Omega > R \geq 50k\Omega$	80dB min.	$50k\Omega > R \geq 10k\Omega$	60dB min.
Nominal total resistance value	Max. att. level								
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$100k\Omega > R \geq 50k\Omega$	80dB min.								
$50k\Omega > R \geq 10k\Omega$	60dB min.								
5. Insertion loss on full C.V. position: 0.1dB max. 6. Slider noise: less than 47mV (by method of JIS C 8443) 7. Insulation resistance: 100MΩ min. at 500V D.C. 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 9. Gang error:									
<table border="1"> <thead> <tr> <th>Nominal total resistance value</th> <th>Gang error</th> </tr> </thead> <tbody> <tr> <td><math>R \geq 50k\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>50k\Omega &gt; R \geq 20k\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>20k\Omega &gt; R \geq 10k\Omega</math></td> <td>3 dB max. between -60 ~ 0 dB</td> </tr> </tbody> </table>		Nominal total resistance value	Gang error	$R \geq 50k\Omega$	3 dB max. between -70 less than -60 dB 2 dB max. between -60 ~ 0 dB	$50k\Omega > R \geq 20k\Omega$	3 dB max. between -60 less than -40 dB 2 dB max. between -40 ~ 0 dB	$20k\Omega > R \geq 10k\Omega$	3 dB max. between -60 ~ 0 dB
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Measure between R1&H2 $\left( \frac{\text{term 1-2 output V}}{\text{term 1-3 in out V}} \right)$									

CLASS NO.	TITLE		
	<b>SPECIFICATIONS</b>		
<b>MECHANICAL</b>			
1. Total rotation angle: $300^\circ \pm 3^\circ$ 2. Operation torque: $80 \sim 350 \text{gf}\cdot\text{cm}$ (Rotational speed at $60^\circ/\text{sec.}$ , at $20^\circ\text{C}$ ) 3. Shaft end stop strength: $8 \text{kgf}\cdot\text{cm min.}$ 4. Resistance to soldering heat: After soldering (less than $350^\circ\text{C}$ 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 5. Bushing nut tightening strength: Tightening torque to be no greater than $15 \text{kgf}\cdot\text{cm}$ . *Pay attention otherwise the strength may not be assured. 6. Shaft push / pull strength: No damages with an application of push or pull force $10 \text{kgf}$ for 10 seconds			
<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 8443.			
<b>ALPS ELECTRIC CO., LTD.</b>			
APPD	CHKD	DSCD	TITLE
Dec. 2 '93	Dec. 1, '93	Nov. 19, '93	
DATE	APPD	CHKD	DSCD
1993	K.S.	J.Y.S.S.	R.
DATE	APPD	CHKD	DSCD
REMARKS			DOCUMENT NO.
K. S. J. Y. S. S. R.			4K272A-200



At 180° C.W shaft rotation from full C.C.W position voltage percent shall fall within the limits of 15~30 percent.

SYNO	DATE	APPD	CHKD.	DSCD.	NAME
					RESISTANCE TAPER
					HSA02

CLASS NO 7 TITLE

Caution for soldering

Please avoid soldering on upper surface of P.C.B. as shown.

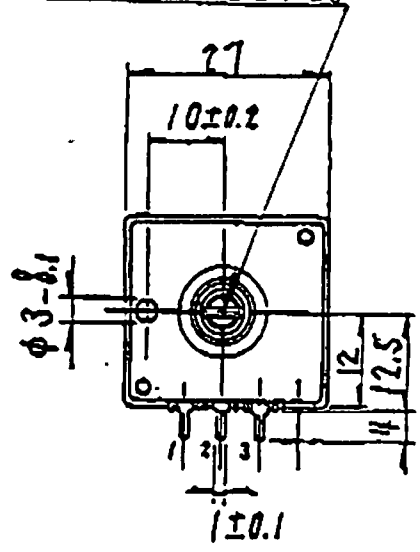
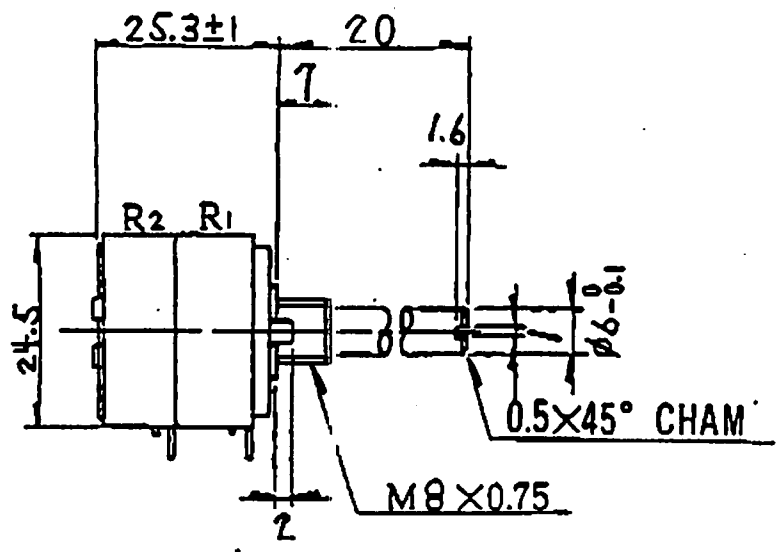
**ALPS ELECTRIC CO., LTD.**

SYNO	DATE	APPD	CHKD.	DSCD.	TITLE	DOCUMENT NO.

23:02 98 09:08 FAX 1743587 ALPS Duesseld 1743587 004

SHAFT SLOT IS OPTIONAL ANGLE

スリ割角度は任意とする。



P.W.B.MOUNTING DETAIL

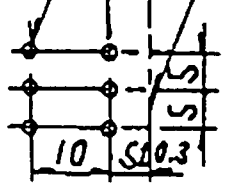
TOLERANCE ± 0.1  
VIEWED FROM MOUNTING SIDE

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
角度 ANGULAR DIMENSION	± 5°

部	番	名	材	料	規	格	処	理	22.5g	3HT1A4
			三角法	単位 mm	尺取					
			承認	原案	設計	図名	1軸2連小型ディテントVR組立図			
			58.4	56.422	58.421	図番	-K272A000F			
R 9 年 月 日 2 日 用 生 技 師										