

Customer :

No. KK-98-4424

Date : Oct. 22, 1998

Attention :

Your ref. No :

Your Part. No : 401722

SPECIFICATIONS

ALPS :

MODEL RK27112MC
(100k AX2)

Spec. No. :

Sample No. : G3296473M

RECEIPT STATUS

RECEIVED

By. Date

Signature

Name

Title

ALPS ELECTRIC CO., LTD.

HEAD OFFICE
1-7, YUKIGAYA-OHTSUKA-CHO,
OHTA-KU, TOKYO 145-8501 JAPAN

DSG'D Y. Saitoh

APP'D Y. Ohya

Sales

SPECIFICATIONS

1. THIS SPECIFICATIONS APPLY TO RK27112MC POTENTIOMETERS.

2. CONTENTS OF THIS SPECIFICATIONS.

4K272AMS-4, 4K16M-1, 4K-1
K272AMC02C

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 sulphuration.
· Marking $\Rightarrow$ in specifications shows standard and condition for application.

CLASSNO.

TITLE

SPECIFICATION

Feature

This is a potentiometer with D.C. magnet motor and it is adjustable by both manual shaft and motor.

Temperature for operating and storage

1.Dimensions : See attached drawing

2.Operating temperature : -10℃ ~+70℃

3.Storage temperature : -20℃ ~+80℃

4.Motor : D.C. magnet motor
(With 6V Disk Varistor)

Mechanical specifications

1.Operation : manual operation and motor drive

2.Total rotational angle : 300° ± 5°

3.Rotational speed : 12 ± 3 sec/300°
(at 4.5V D.C. applied to motor)

4.Direction of rotation : C.W. rotation at normal polarity.
(When the potentiometer is looked at from the shaft side.)

5.Mechanical noise : Continuous,monotonous,not unpleasant sound to be heard.
To be mutually discussed when questionable.

6.Rotational torque : 150 ~ 450 gf.cm(Rotational speed 60' /sec.)

7.Stopper strength of shaft with manual operation No damage with an application of 9 kgf.cm.
with motor drive : Shaft must be slipped at the CHASSIS NUT both ends of manual rotation.

8.Bushing nut tightening strength:
Tightening torque to be no greater than 15 kgf.cm.
*Pay attention otherwise the strength may not be assured.

9.Push / pull strength : No damages with an application of push or pull force
10 kgf for 10 sec.

10.Resistance to soldering heat : After soldering there shall be no evidence of poor contact between resistance element and terminals, or any physical damage as a result of the test.

The terminal of the potentiometer less than 350℃ and within 5 sec.

The terminal of the motor less than 350℃ and within 2 sec.

CLASSNO.

TITLE

SPECIFICATIONS

Electrical specifications 100kΩ

1.Total resistance : Nominal total resistance ± 20%(10kΩ ≤ R ≤ 2MΩ)

2.Rated voltage : 30V A.C.This potentiometer is designed for A.C. voltage only.

3.Resistance taper : See (HSA02.) Δ ~~See separate figure~~

4.Maximum attenuation level at full C.C.W. position :

Total resistance	Attenuation level
R ≥ 100kΩ	100 dB min.
100kΩ > R ≥ 50kΩ	90 dB min.
50kΩ > R ≥ 10kΩ	80 dB min.

5.Insertion loss at full C.W. position : 0.1 dB max.Measure between (R1,R2)

6.Gang error : (term 1-2 output V term 1-3 in out V)

Total resistance	Gang error
R ≥ 50kΩ	3 dB max. between -70 dB less than -60 dB
50kΩ > R ≥ 20kΩ	2 dB max. between -60 dB ~ 0 dB
20kΩ > R ≥ 10kΩ	3 dB max. between -60 dB less than -40 dB
	2 dB max. between -40 dB ~ 0 dB
	3 dB max. between -60 dB ~ 0 dB

7.Sliding noise : Less than 47mV measured by JIS C 6443.
(Neglected a impulsive noise at the C.W. and C.C.W. ends of position.)

8. Insulation resistance
Potentiometer section : More than 100MΩ at 500V D.C.
Motor section : More than 1MΩ at 100V D.C.

9. Withstand voltage
Potentiometer section : 500V A.C. for 1 minute.
Supply voltage of motor : 4~6V D.C.

10. Supply current (at 4.5V D.C. applied to motor)
Normal operation : 100mA max.
Slipping operation
at both ends : 150mA max.
4.5V D.C.

Endurance specifications
1. Rotational life : 15,000 cycles min.

SYMB.	DATE	APPD.	CHKD.	DSGD.	TITLE
Δ	12.14.89	Y.S.	Nov.10.93	Nov.10.93	Nov.10.93
Original	12.18.91	M.Y.	R.K.T.		

DOCUMENT NO. 4K272AMS-4

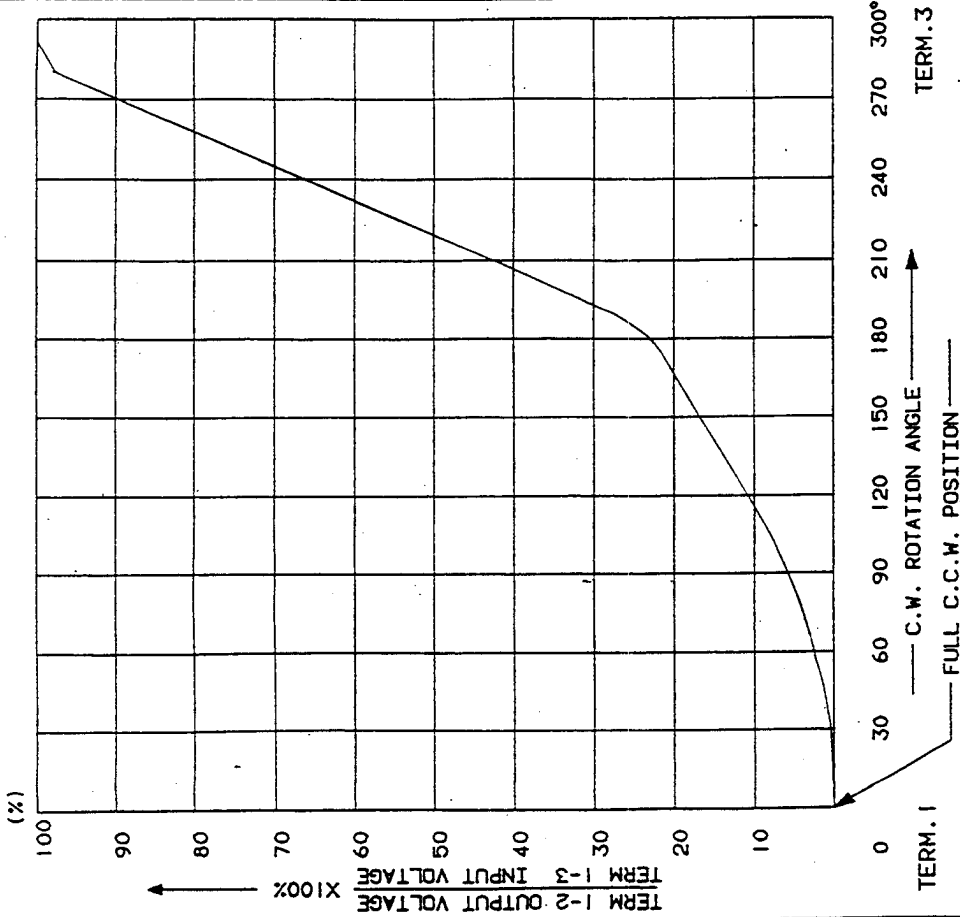
4K272AMS-4

W7306 A 4 63.7 2.000

(規格・仕様書用紙)



ALPS ELECTRIC CO., LTD
1-7 YUKIGAYA OTSUKA-CHO OTA-KU TOKY JAPAN



AT 180° C.W. SHAFT ROTATION FROM FULL C.C.W. POSITION, VOLTAGE PERCENT SHALL FALL WITHIN THE LIMITS OF 15 - 30PERCENT.

SYMB	DATE	APPD	CHKD	DSGD	SCALE	TITLE
105-05-31	17.2.76	T.K.S.S.	18.2.76	18.2.76	18.2.76	RESISTANCE TAPER
105-05-31	17.2.76	T.K.S.S.	18.2.76	18.2.76	18.2.76	DOCUMENT NO.
105-05-31	17.2.76	T.K.S.S.	18.2.76	18.2.76	18.2.76	HSA02

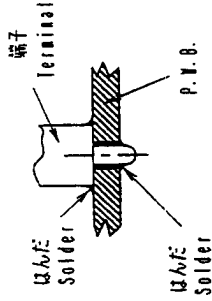
OR

< はんだ付け時のご注意事項 >

図のようにP. W. Bの上面に はんだ付けをする配線は、お避け下さい。

Caution for soldering

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



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TITLE

DSGD

CHKD

APPD

DOCUMENT NO.

4K-1

SYMB

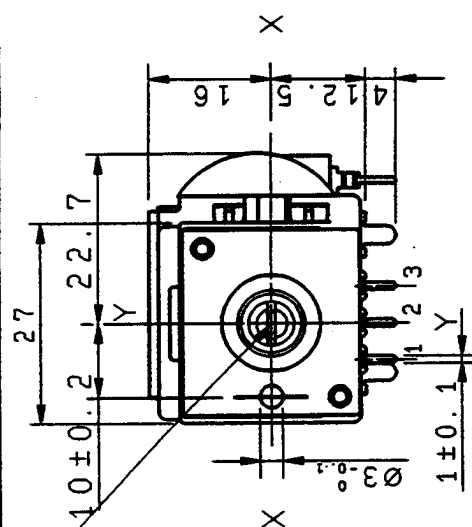
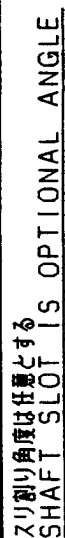
DATE

APPD

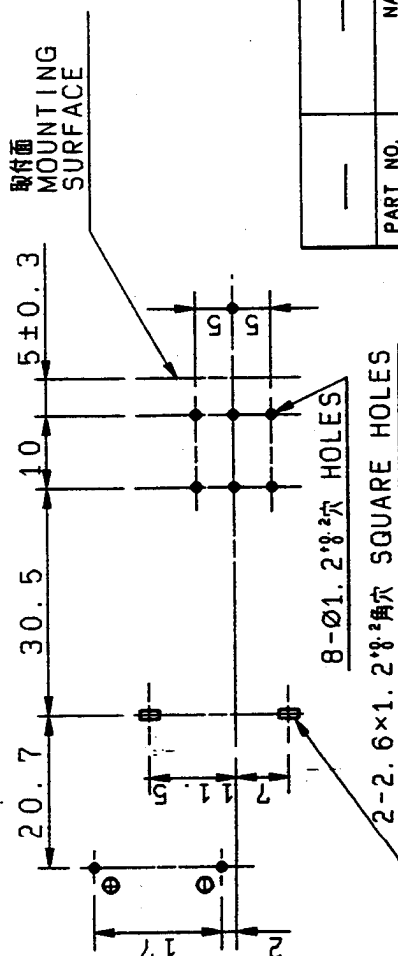
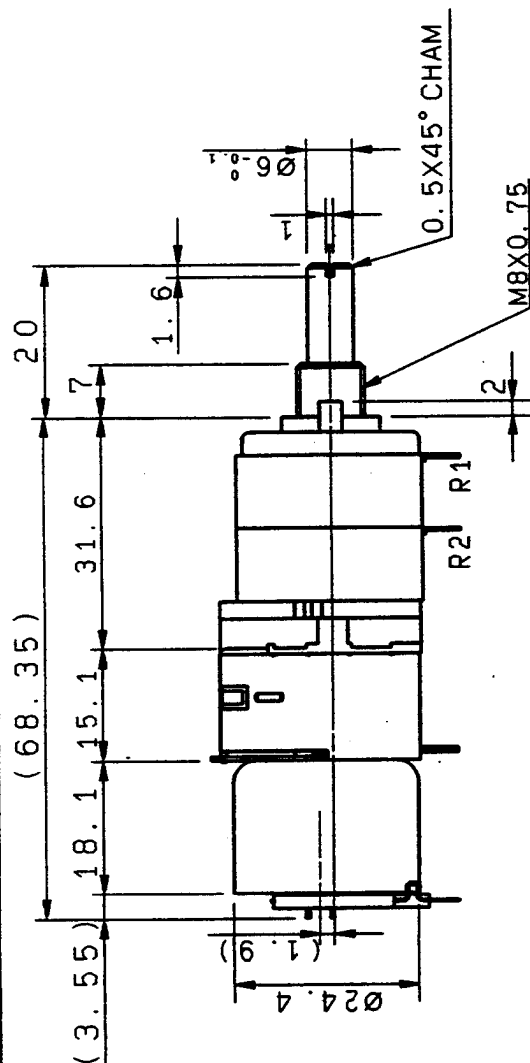
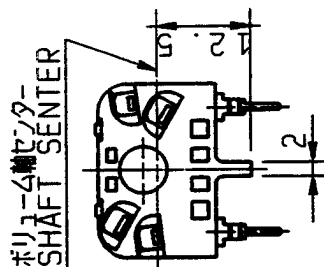
CHKD

DSGD

OR



背面 BACK VIEW



取付穴寸法図許容差±0.1
挿入側よりみた図

P. W. B. MOUNTING DETAIL

F. W. D. MOUNTING DE
TOLERANCE. 1

TOLERANCES: 1
VIEWED FROM MOUNTING SIDE

指定なき部分の許容差 TOLERANCES UNLESS OTHERWISE SPEC	$L \leq 10$	± 0.3
	$10 < L \leq 100$	± 0.5
	$100 \leq L$	± 0.8
角度 ANGULAR DIMENSIONS		$\pm 5^\circ$

—	—	—	—	モータ基板付
PART NO.	NAME	MATERIAL NAME / CODE	FINISH	
		ALPS ELECTRIC CO., LTD.		
		DSGN. P77411-908011	SCALE	
		Y. SAITOH 94-04-21	1:1	
		CHKD. <i>M. Saitoh</i> 94-04-22		TITLE
		APPD. <i>K. Yamazaki</i> 94-04-22	UNIT	27形1軸2速モータ-VR組立図
SYMB	DATE	APPD	CHKD	DOCUMENT NO.
				K272AMC02C
				89.3g. OR