

Customer : albs-Alltronic

No. _____

Date : Apr.9.1991

Attention : _____

Your ref. No. : _____

Your Part No. : 194449

SPECIFICATIONS

PURPOSE OF THIS DOCUMENT:

- ☐ PRELIMINARY copy.
☒ Request for your APPROVAL.
(☒ New, ☐ Engineering Change)
Please sign and return one copy.

APPROVED BY, Date: _____

X

Name

Title

☐ For PRODUCTION.

ALPS' ;

RK27112MC009A

MODEL: (10kA x 2)

Spec. No. : 4K272AMS-1

Fig.No.: K272AMC002

REMARKS:

MARKING

ON ALL UNITS

DATE CODE	
RESIST, VALUE	
TAPER	
TRADE MARK	
JAPAN	

FURNISH PACKAGE

NUT	1
WASHER	1



ALPS ELECTRIC CO., LTD.

HEAD OFFICE

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

DSGD

T. Yamaguchi

APPD

M. Sato

ENG. DEPT. WAKUYA DIVISION

CLASS NO.	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 °C ~ +70 °C 3. Storage temperature : -20 °C ~ +80 °C 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 3V 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 7. Stopper strength of shaft With manual operation : 9 kgf·cm min. With motor drive : Shaft must be slipped at the both ends of manual rotation. 8. Bushing nut tightening strength : 15 kgf·cm min. (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 °C and within 5 sec. The terminal of the motor less than 350 °C and within 2 sec.		

CLASS NO.	TITLE	SPECIFICATIONS								
Electrical specifications 1. Total resistance : Nominal total resistance ± 20% (10kΩ ± 2MΩ) 2. Maximum operating voltage : 30V A.C. 3. Resistance taper : See taper figure 4. Maximum attenuation level at full C.C.W. position :										
<table><thead><tr><th>Total resistance</th><th>Attenuation level</th></tr></thead><tbody><tr><td>R ≥ 100kΩ</td><td>100 dB min.</td></tr><tr><td>100kΩ > R ≥ 50kΩ</td><td>90 dB min.</td></tr><tr><td>50kΩ > R ≥ 10kΩ</td><td>80 dB min.</td></tr></tbody></table>			Total resistance	Attenuation level	R ≥ 100kΩ	100 dB min.	100kΩ > R ≥ 50kΩ	90 dB min.	50kΩ > R ≥ 10kΩ	80 dB min.
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. (when right)										
6. Gang error : (mm 1-2 1mm 1-3 1mm 1-4)										
<table><thead><tr><th>Total resistance</th><th>Gang error</th></tr></thead><tbody><tr><td>R ≥ 50kΩ</td><td>3 dB max. between -70 dB less than -60 dB 2 dB max. between -60 dB ~ 0 dB</td></tr><tr><td>50kΩ > R ≥ 20kΩ</td><td>3 dB max. between -60 dB less than -40 dB 2 dB max. between -40 dB ~ 0 dB</td></tr><tr><td>20kΩ > R ≥ 10kΩ</td><td>3 dB max. between -60 dB ~ 0 dB</td></tr></tbody></table>			Total resistance	Gang error	R ≥ 50kΩ	3 dB max. between -70 dB less than -60 dB 2 dB max. between -60 dB ~ 0 dB	50kΩ > R ≥ 20kΩ	3 dB max. between -60 dB less than -40 dB 2 dB max. between -40 dB ~ 0 dB	20kΩ > R ≥ 10kΩ	3 dB max. between -60 dB ~ 0 dB
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20kΩ > R ≥ 10kΩ	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. 10. Supply voltage of motor : 2 ~ 6V D.C. 11. Rated voltage for Motor : 3V D.C. 12. Motor current (at 3V applied to motor) Normal operation : 100mA max. Slipping operation : 150mA max. at both ends : Endurance specifications 1. Rotational life : 15,000 cycles min.										

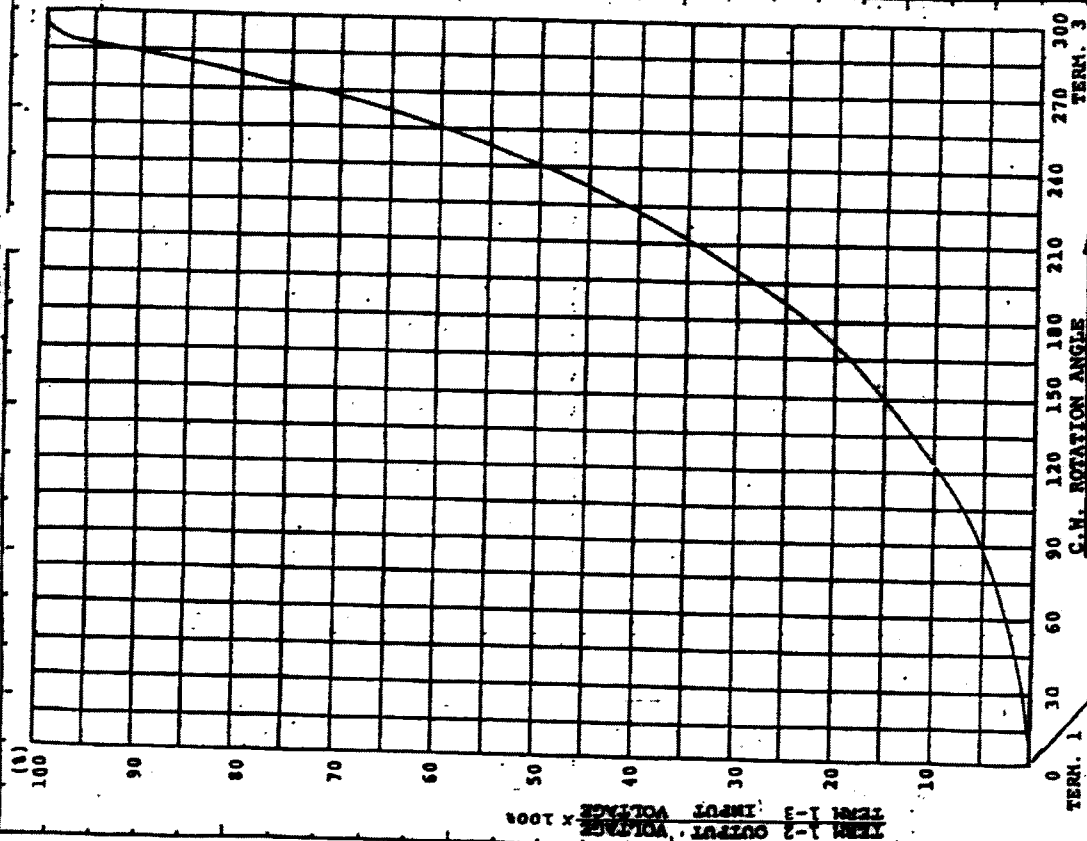
15A
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APPRO. CHKD. DESIGNED. TITLE	
APPRO. CHKD. DESIGNED. TITLE	DOCUMENT NO.
APPRO. CHKD. DESIGNED. TITLE	4K272AMS-1

ALPS ELECTRIC CO., LTD.



1-1, THE DATA CONTAINS - 0000 0000 0000 0000

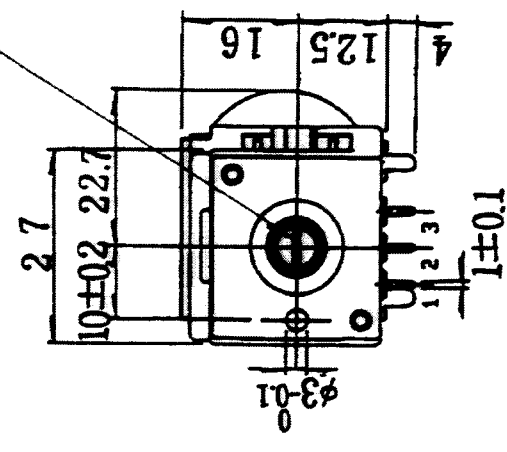


FULL C.C.W. POSITION

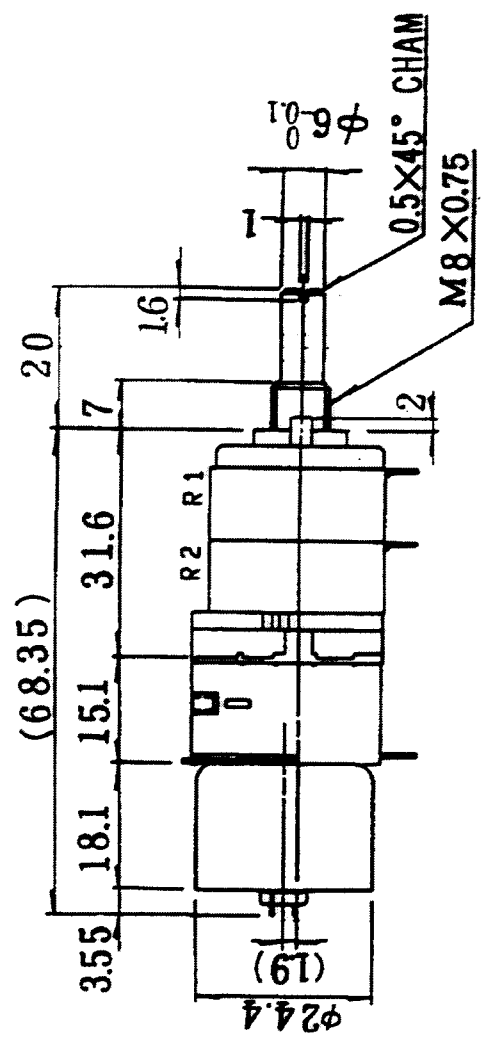
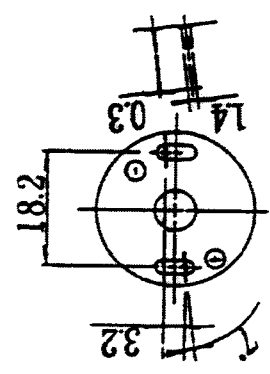
At 180° C.W shaft rotation from full C.C.W position voltage percent shall fall within the limits of 15-30 percent.

DATE	TIME	APPR	CHKD.	DESD.	NAME
June 11, 1965	11:45 A.M.	T.K.	S.S.	May 11, 55 Days 30 Days 98/65	RESISTANCE TAPER
				Notes: 1. Name of S. Smith	.. HSA02

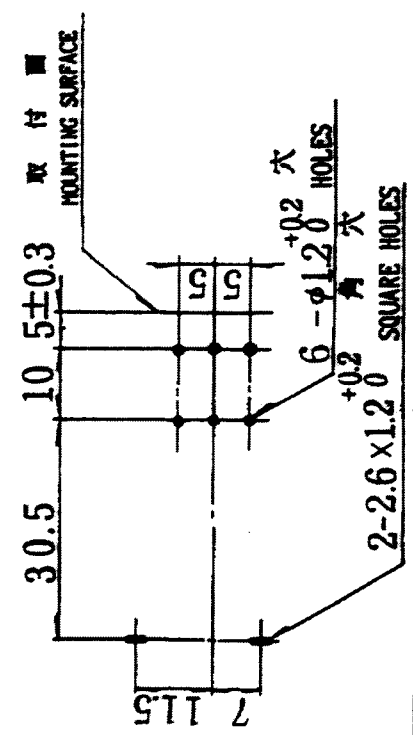
スリ割角度は任意とする。
SHAFT SLOT IS OPTIONAL ANGLE



背面図
BACK VIEW



取付穴寸法図 許容差±0.1
P.W.B. MOUNTING DETAIL
TOLERANCE ±0.1
VIEWED FROM MOUNTING SIDE
挿入側より



片寸法の指定なき寸法の公差	
TOLERANCES UNLESS OTHERWISE SPEC	
BASIC DIMENSIONS	TOLERANCE
10 < L < 100	±0.3
100 < L < 1000	±0.5
1000 < L < 10000	±0.8
角寸法	±0.1

PART NO.		NAME		MATERIAL NAME & CODE		FINISH	
ALPS ELECTRIC CO., LTD.							
SYMB.		DATE	APPD.	CHKD.	DSGD.	TITLE 27形1軸2連 モータ駆動ボリューム組立図	
						DOCUMENT NO. K272AMC002	

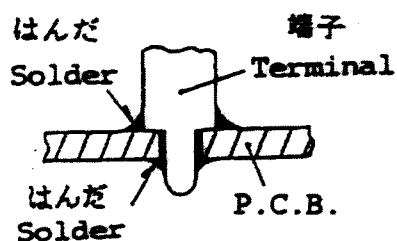
CLASS.NO.	TITLE
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〈はんだ付け時のご注意事項〉

Caution for soldering

図のようにP.C.B.の上面に はんだ付けをする配線は、
お避け下さい。

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



					ALPS ELECTRIC CO., LTD.			
					APPD.	CHKD.	DSGD.	TITLE
					23.1 89.8.-1 大倉	W23.1 89.8.-1 浅田	23.1 89.8.-1 阿部	DOCUMENT NO. (/)
SYMB.	DATE	APPD.	CHKD.	DSGD.				