



規格書 SPECIFICATION

XB004-2008

產品名稱 PART NAME	PUSH-BUTTON SWITCH	版本 REV	A	編制 PLANNER	阮倪展
產品型號 PART NUMBER		頁碼 PAGE	1 OF 5	審核 VERIFIED	贺龙飞
				批准 APPROVAL	赖海杰

1. 一般事項(General affairs)

1-1 適用範圍(Applicable range)

KAG-02A21 型按鈕開關適用於家用電器或類似電子設備作電路通斷之用。

KAG-02A21 type PUSH-BUTTON SWITCH is applicable for home appliances or analogy electronic equipment ON and OFF circuit.

1-2 標準狀態(Standard state)

除另規定外，測量應在以下狀態下進行：

Testing at the state as follow accept the special spec.

溫度： 15°C ~ 35°C

Temperature: 15°C ~ 35°C

相對濕度： 45% ~ 70%

Relative humidity: 45% ~ 70%

氣壓： 86KPa ~ 106Kpa

Atmospheric pressure: 86KPa ~ 106Kpa

1-3 使用溫度範圍： -25°C ~ +85°C

Practical temperature range: -25°C ~ +85°C

1-4 環保要求：產品符合歐盟 ROHS 指令的環保要求。

Environment requirement: Products according to ROHS.

2. 外形結構(Appearance and structure)

2-1 外觀：應無明顯收縮、飛邊、劃傷，鍍層均勻，無脫落等現象。

Appearance: It should no obvious shrinking、upset metal、Scrape、plating path well-distributed and no coming off.

2-2 尺寸：按產品圖製作（附外形圖）

Size: Making according to product drawing(drawing attached).

3. 額定值(Rating)

額定負荷：14(10)A 250VAC

Rated load: 14(10)A 250VAC



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4、電氣性能 (Electricity function)

序號 NO.	項目 Item	條件 Condition	要求 Requirement	備注 Remark
4-1	接觸電阻 Contact resistance	開關內相互接觸的端子之間 Between the contacting terminal of switches.	$\leq 50\text{m}\Omega$	
4-2	絕緣電阻 Insulation Resistance	不相連接的各導電件之間、 端子與絕緣外殼之間施加 DC500V Apply DC 500V among non-connecting conductors & terminal and insulator shell	$\geq 100\text{M}\Omega$	
4-3	耐電壓 Withstand voltage	不相連接的端子之間、端子 與絕緣外殼之間施加 AC1500V/3750V、0.5mA、1min Apply AC1500V/3750V、0.5mA、1min among non-connecting terminal and terminal and insulator shell	無擊穿或飛弧現象 No puncture or flash-over	

5. 機械性能 (Mechanical Function)

序號 NO.	項目 Item	條件 Condition	要求 Requirement	備註 Remark
5-1	動作力 Action force	在按鈕頂端沿開關動作方向加力 Apply force on the top of push-button.	4-10N	
5-2	功能動作 Functional action	在按鈕頂端沿推杆動作方向加力 Apply force on the top of push-button.	開關應動作靈活，無卡住現象 Action of switch should be flexible and no locked	



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序號 NO.	項目 Item	條件 Condition	要求 Requirement	備註 Remark
5-3	端子強度 Terminal strength	端子前端的任意方向施加 10N 的靜負荷力 10 秒鐘 Apply 10N static electricity load for 10 sec to any direction on the front of terminal	端子不得有明顯裂紋及移位，但允許變形 No obvious crack and replacement on the terminal accept deformation	
5-4	可焊性 Solderability	端子先端浸助焊劑 焊接溫度：235±5℃ 浸錫時間：2±0.5S 浸入深度不超過印製板厚度的二分之一 Put the front of jointing into the soldering flux. Welding temperature:235±5℃ Steeping tin time:2±0.5S Immersion depth no more than 1/2 thickness of P.C. Board	沾錫面積≥90% Contaminating tin area≥90%	
5-5	耐焊接熱 Resistance to Soldering heat	端子插入 t1.6mm 印製板並浸助焊劑： 焊接溫度：260±5℃ 浸錫時間：5±1S Put the terminal into t1.6 mm P.C. board and soldering flux: Welding temperature:260±5℃ Steeping tin time:5±1S	不得有絕緣體的破損、變形、接觸無異常 No damage, deformation and abnormal touching of insulator.	
5-6	按鈕強度 Push-button strength	在按鈕頂端的軸向和縱向各施加 50N 和 10N 的力保持 10 秒 Apply 10N and 50N load for 10sec to axis and portrait on the top of the push-button	開關應無損傷 Switch should not any damnification	



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6. 耐久性能 (Longevity)

序號 NO.	項目 Item	條件 Condition	要求 Requirement	備註 Remark
6-1	潮濕試驗 Humidity test	溫度 $40\pm 2^{\circ}\text{C}$ 、濕度 90~95% 的恒溫恒濕中放置 48 小時後，在試驗箱中進行測量 Put products into the constant temperature and humidity container which temperature is $40\pm 2^{\circ}\text{C}$, and humidity is 90~95% for 48 hours, test in the equipment.	絕緣電阻: $\geq 10\text{M}\Omega$; 耐壓: 1500VAC/min 3750VAC/min Insulating resistance $\geq 10\text{M}\Omega$ Withstand Voltage: 1500VAC/min 3750VAC/min	
6-2	鹽霧試驗 Salt mist test	在溫度為 $35\pm 2^{\circ}\text{C}$ 、氯化鈉溶液濃度為 $5\pm 0.1\%$ 的鹽霧箱中連續噴霧 24 小時，用清水洗淨後觀測 Put product in the salt mist box with temperature of $35\pm 2^{\circ}\text{C}$ and sodium chloride liquor $5\pm 0.1\%$ to spray for 24 hours, then clean by water to observe	零件表面無明顯的銹蝕 Surface of parts shall not obvious rust severity	
6-3	高溫試驗 Heat test	溫度 $85\pm 2^{\circ}\text{C}$ 的恒溫箱中放置 48 小時，在常溫、常濕放置 24 小時測量。 Put product into the constant temperature container which temperature is $85\pm 2^{\circ}\text{C}$ for 48 hours, and test after 24 hours in the constant temperature and humidity.	絕緣電阻: $\geq 100\text{M}\Omega$ 耐壓: 1500VAC/min 3750VAC/min 動作力: $1\pm 0.5\text{N}$ Insulating resistance: $\geq 100\text{M}\Omega$	
6-4	低溫試驗 Cold test	溫度 $-25\pm 2^{\circ}\text{C}$ 的恒溫箱中放置 48 小時，在常溫、常濕放置 24 小時測量。 Put products 48 hours into the constant temperature container which temperature is $-25\pm 2^{\circ}\text{C}$, and test after 24 hours in the constant temperature and humidity.	Withstand Voltage: 1500VAC/min 3750VAC/min Action force: $1\pm 0.5\text{N}$	



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序號 NO.	項目 Item	條件 Condition	要求 Requirement	備註 Remark
6-5	振動試驗 Vibration test	振頻=10~55HZ，加速度為5g，振幅0.35mm，在X、Y、Z方向上各2小時。 Vibrational frequency=10~55HZ, acceleration is 50 m/ S ² , amplitude is 0.35mm, test 2 hours at the direction of x、y、z.	開關應無損傷 Switch should not any damnification	
6-6	壽命試驗 Life test	在額定負荷條件下，開關動作10000次，6~10次/分鐘 On the condition of rated load, switch action 10000 times, 6~10 times/min.	開關的功能動作應正常； 耐壓：1000VAC/min、3000VAC/min 溫升：≤45℃ Functional action of Switch shall normal Withstand Voltage: 1000VAC/min 3000VAC/min Temperature rise: ≤45℃	

7. 注意事項 (Points for attention)

7-1 裝有產品的紙箱或木箱允許用任何方法運輸，唯需避免雨雪直接淋襲和機械撞擊。

Paper box and wood box which load products are allowed to use any way to transport, but should avoid rain and snow and dashing against of machine.

7-2 產品應存放在環境溫度為-10~+40℃，相對濕度不大於80%，周圍空氣不應有酸、堿、硫化物、臭氧、氨氣及其它對產品有害氣體的倉庫內。

Products should storage in the warehouse which air around it mustn't exist which the environmental temperature is -10~+40℃, relative humidity is no more than 80%, and no acid, alkali, sulphide, ozone, ammonia air and other poisonous gas.