



# SPECIFICATION

# KING-CORD

APPROVED

**RoHS Compliant**

<b>CUSTOMER NAME:</b>	<b>CONNEXIONS</b>
<b>CUSTOMER P/NO:</b>	<b>ML-2030-SI</b>
<b>KING-CORD/NO:</b>	<b>K14031H5195BB</b>
<b>EDITION:</b>	<b>A</b>

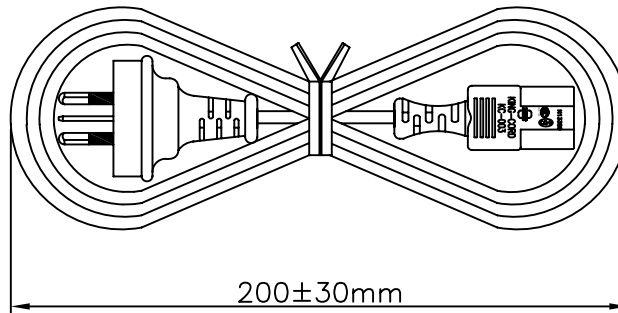
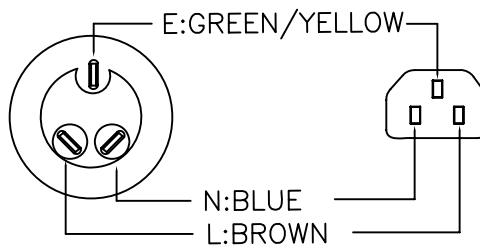
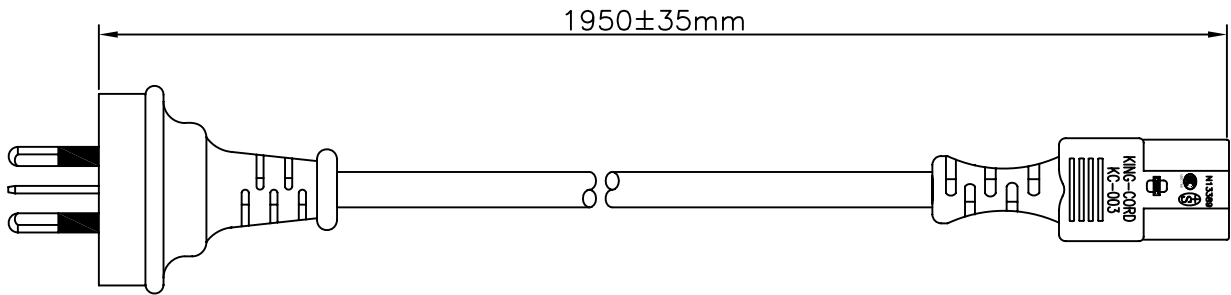
<b>CUSTOMER APPR</b>	<b>APPR</b>	<b>CHECK</b>	<b>MADE</b>
			<i>Yi YueHui</i>

# INDEX

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KC-014: N20221

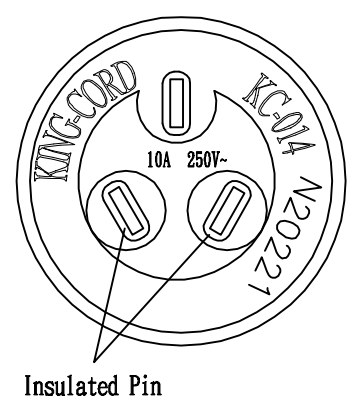
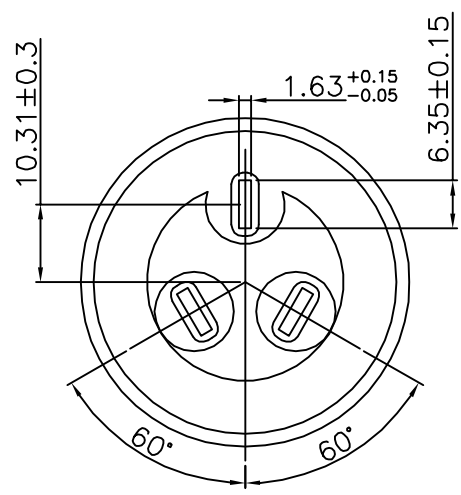
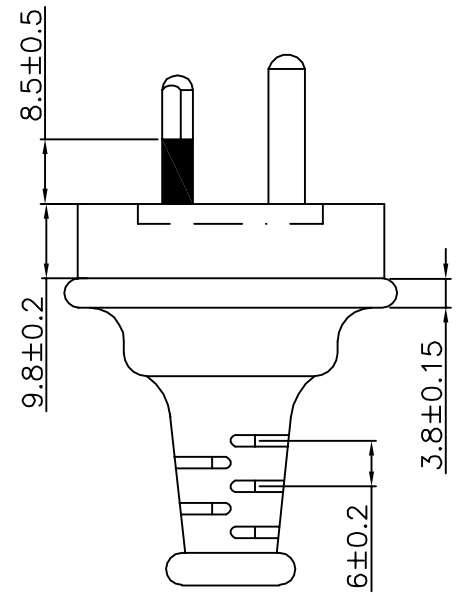
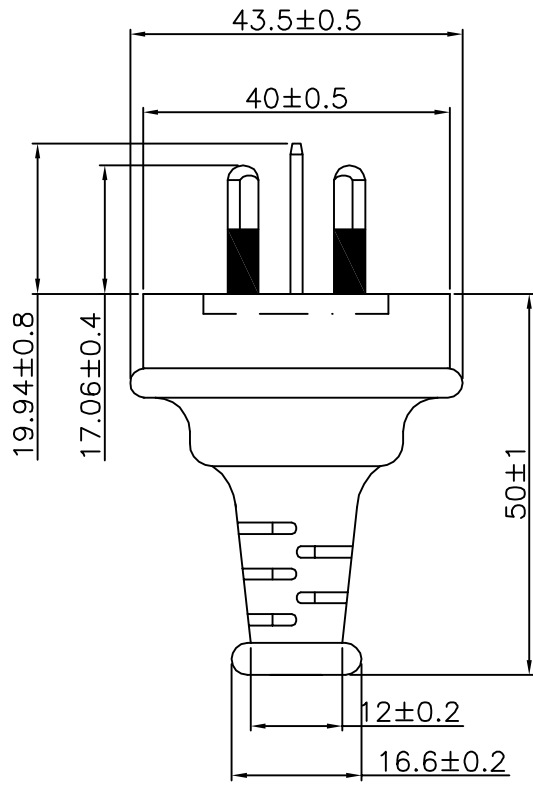
KC-003:             N13389  



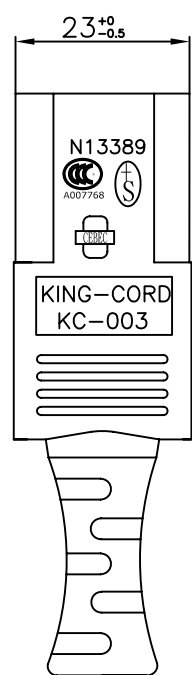
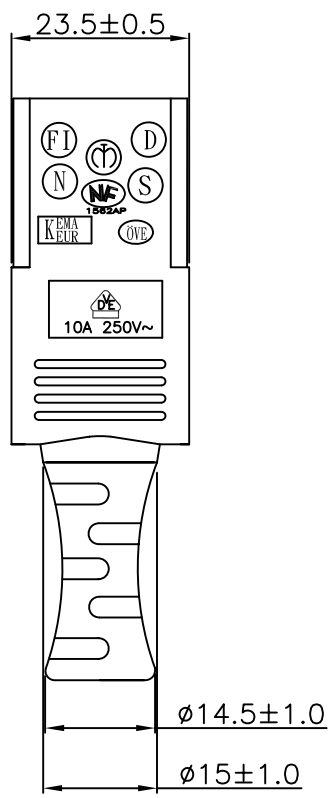
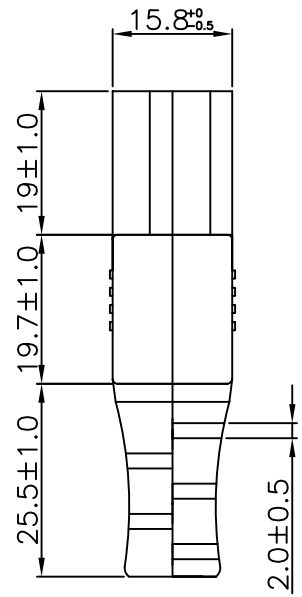
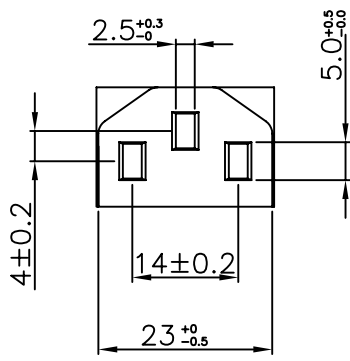
NOTE:

A	NEW	MAR.27.2007
REV	DESCRIPTION	DATE
REVISION		
CUSTOMER NAME: CONNEXIONS		
CUSTOMER NO.: ML-2030-SI		
KING-CORD NO.: K14031H5195BB		
KING-CORD CO.,LTD.		

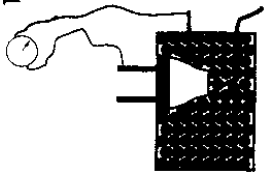
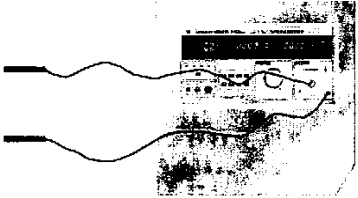
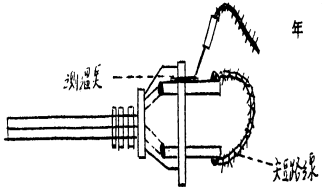
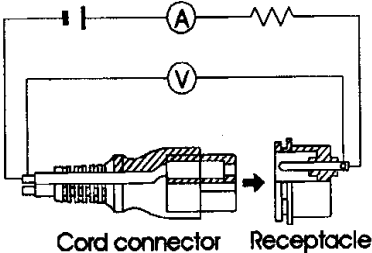
NO:	DESCRIPTION	Q'TY	REMARK
3	Cable: H05W-F 3G*0.75mm <sup>2</sup>	1PC	BLACK
2	Connector:KC-003,10A 250V~	1PC	
1	Plug:KC-014,10A 250V~	1PC	



			Drawer	OTTO	Unite	mm	Date	2005.10.08
			Scale	1/1	Current	10A 250V~	Drawing No	KC-014
A	NEW	05.10.08	KING-CORD CO.,LTD.					
REV	DESCRIPTION	DATE						



			Drawer	kale	Unite	mm	Date	2005.09.29
			Scale	1/1	Current	10A 250V~	Drawing No	KC-003
A	NEW	05.09.29	KING-CORD CO.,LTD.					
REV	DESCRIPTION	DATE						

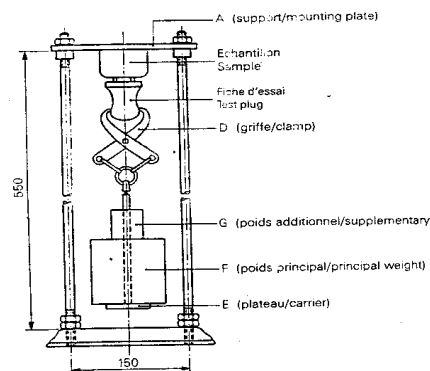
No.	Items項目	Conditions for Test測試條件	Specification判定規格
1	Insulation Resistance 絕緣阻抗 (IEC884 C17 OR IEC320 C15)	A quantity of No.7 lead drop shot is to be placed in a container,Apply a voltage of 500V DC for 1 min. at an ambient temperature of $25\pm 5^{\circ}\text{C}$ , between: A)Live parts of opposite polarity B)Live parts and ground or contact with ground after which the measurement shall be made. Show below as: Megohmmeter 	100MΩ or more
2	Dielectric Strength 電氣強度 (IEC884 C17 OR IEC320 C15)	The test potential is to be supplied from a 500VA or large capacity testing transformer,and be increased from zero until 2000V(in fact,required 1250V) is reached,then held at the voltage for 1min. A)Live parts of opposite polarity B)Live parts and ground or contact with ground C)Between conductor and outside body Frequency:50/60Hz 	Without breakdown or flashover
3	Moisture Resistance 抗潮濕性 (IEC884 C16.3 OR IEC320 C14)	The humidity cabinet can be used. Relative humidity:91%-95% Temperature: 20-30°C The specimens are kept in the cabinet for -168h(7 days) for connector with earthing contact,and for appliance inlets with earthing accessories,not incorporated in other equipment -48h(2 days ) in all other cases.	After this treatment, the specimen shall be withstand dielectric strength
4	Temperature Rise 溫升測試 (IEC884 C19 OR IEC320 C21)	Test current:1.25 times rated cur Test time for 1h Contact show in below: 	The temperature rise of the terminals and contact is no more than 45K
5	Contact Resistance 接觸阻抗 (IEC884 C11.5)	Insert the cord connector straight into the receptacle, measurement shall be made between the connector and the receptacle only.Test current :1A DC. Ambient temperature : $25\pm 5$ .Insert the cord connector into the receptacle as shown below ,and measure the contact resistance by the voltage drop method. 	No more than 20mΩ

No.	Items項目	Conditions for Test測試條件	Specification判定規格
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6  
Withdraw Force  
拔插力  
(IEC320 C16)

Withdraw the connector straight into the standard gauge (mating plug),First The connector is inserted to the full depth into and withdraw from the appropriate appliance inlet 10 times,It is then again inserted for a principal mass is such that it exerts a force equal specified in the table .Verification of the minimum withdraw force is applied to each connector,the total mass of ppplicable force as show in table.

Type	Withdraw force N(Kg)		
	Multi-Pin guage		Single-Pin guage
	Maximum	Minimum	Minimum
0.2A/2.5A/6A/10A	50(5.1)	13(1.3)	1.5(0.15)
≥ 16A	60(6.1)	15(1.5)	2(0.2)



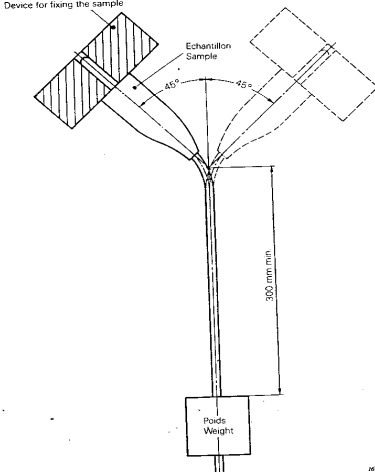
During the verification of the maximum withdraw force test,The principal mass is hung on the connector without jolting and the supplementary mass is allowed to fall from a height of 5cm on to the principal mass,the connector shall not remain in the appliance After verification of the minimum withdraw force test,the gauge shall be not removed 0.079inch(2mm).Durin g the single-pin gauge test,the gauge shall not fall from the contact assembly without 3sec.

7  
Flexing Test  
彎曲測試  
(IEC884 C23.4 OR IEC320 C22.4)

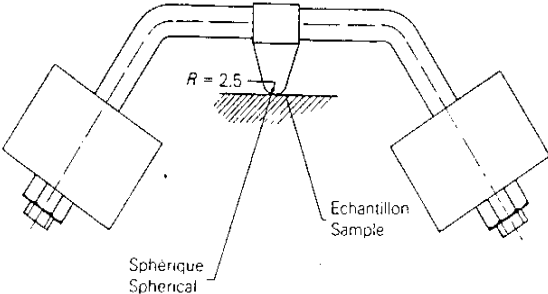
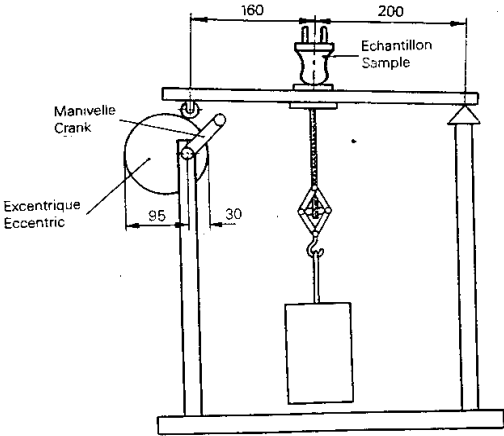
A molded-on attachment plug and cord connector shall be capable withstanding the test specified as show in the table: molded to 20inch(508mm) lengths of flexible cord is required,and each cord approximately 12 inches(305mm) from the point of rotation to the weight,see fig 94.1

Cord type (mm <sup>2</sup> )	Load weight (g)	Angle (°)	Frequency (turns)	Flexing No. for connector (turns)	Flexing No. for plug
other	10N(1020g)	45°	60r/min	20000	10000
>0.75	20N(2040g)	45°	60r/min	20000	10000

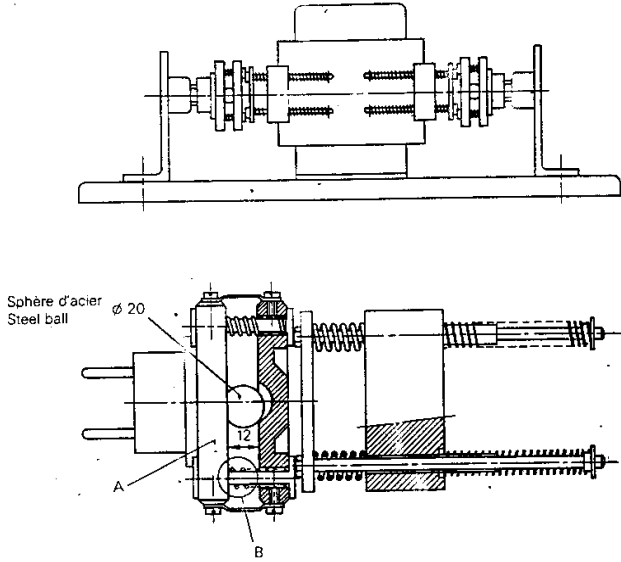
A sample shall be secured to the flexing apparatus as below:

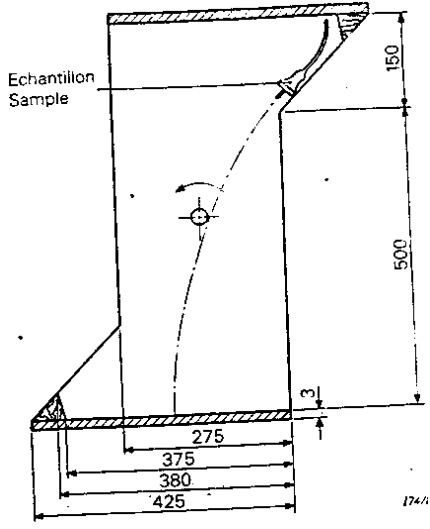


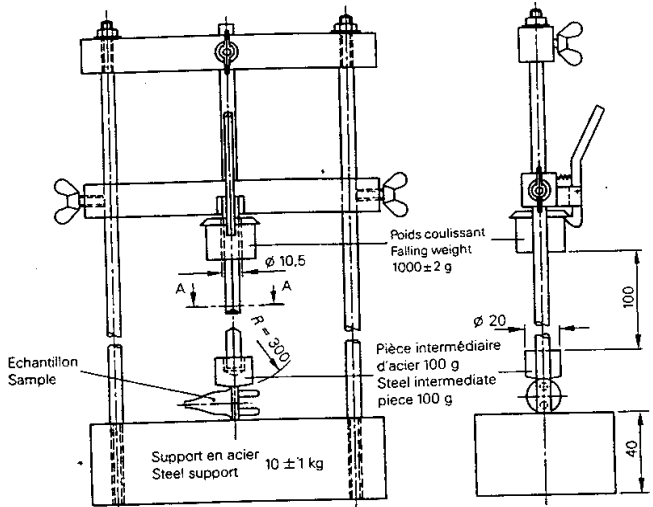
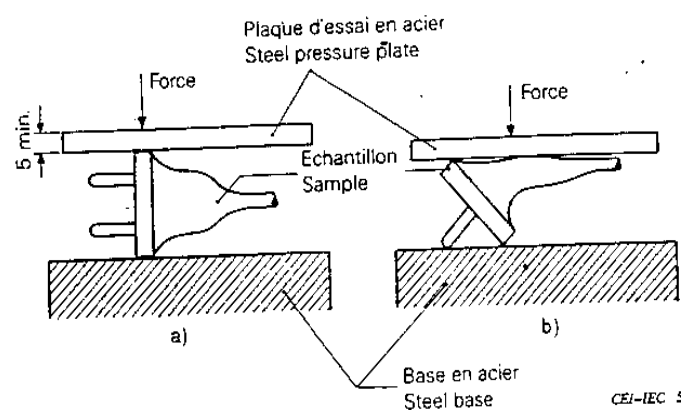
After the test the sample shall be no damage or breakage

No.	Items項目	Conditions for Test測試條件	Specification判定規格																																							
8	Heat Pressure Test 球壓測試 (IEC884 C25.2 OR IEC320 C24.1)	<p>A ball pressure test is made in a heating cabinet at a temperature of <math>125\pm 2^{\circ}\text{C}</math> and applied a steel ball of 5mm diameter against this sample surface with a force of 20N.after 1 hour,the tested ample is cooled down within 10 seconds.see as following fig.:</p> 	the diameter of the impression caused by the ball shall not exceed 2 mm																																							
9	Anchorage Test 錨錠測試 (IEC884 C23.2 OR IEC320 C22.3)	<p>A sample is placed in the test apparatus(as below) so that the axis of the flexible cable is vertical where it enters the sample.The flexible cable is then subjected to show in the table:</p> <table border="1" data-bbox="525 808 1112 1075"> <thead> <tr> <th>Rating</th> <th>Pull</th> </tr> </thead> <tbody> <tr> <td><math>I \leq 2.5\text{A}</math></td> <td>50</td> </tr> <tr> <td><math>2.5\text{A} &lt; I &lt; 16\text{A}</math> <math>U &lt; 250\text{V}</math></td> <td>60</td> </tr> <tr> <td><math>I &lt; 16\text{A}</math> <math>U &gt; 250\text{V}</math></td> <td>80</td> </tr> <tr> <td><math>I &gt; 16\text{A}</math></td> <td>100</td> </tr> </tbody> </table> <p>Immediately afterwards, the flexible cable is subjected for</p> <table border="1" data-bbox="414 1164 1208 1478"> <thead> <tr> <th rowspan="2">Rating of plug or portable socket-outlet</th> <th colspan="5">Flexible cable (number of cores x cross-section in mm<sup>2</sup>)</th> </tr> <tr> <th>2 x 0,5</th> <th>2 x 0,75</th> <th>3 x 0,5</th> <th>3 x 0,75</th> <th>(2 or more) x 1</th> </tr> </thead> <tbody> <tr> <td>Up to and including 16 A and 250 V</td> <td>0,1 Nm</td> <td>0,15 Nm</td> <td>0,15 Nm</td> <td>0,25 Nm</td> <td>0,25 Nm</td> </tr> <tr> <td>16A and above 250 V</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>0,35 Nm</td> </tr> <tr> <td>Above 16 A</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>0,425 Nm</td> </tr> </tbody> </table> 	Rating	Pull	$I \leq 2.5\text{A}$	50	$2.5\text{A} < I < 16\text{A}$ $U < 250\text{V}$	60	$I < 16\text{A}$ $U > 250\text{V}$	80	$I > 16\text{A}$	100	Rating of plug or portable socket-outlet	Flexible cable (number of cores x cross-section in mm <sup>2</sup> )					2 x 0,5	2 x 0,75	3 x 0,5	3 x 0,75	(2 or more) x 1	Up to and including 16 A and 250 V	0,1 Nm	0,15 Nm	0,15 Nm	0,25 Nm	0,25 Nm	16A and above 250 V	-	-	-	-	0,35 Nm	Above 16 A	-	-	-	-	0,425 Nm	After the test,the flexible shall not have been displaced by more than 2mm,or no break.
Rating	Pull																																									
$I \leq 2.5\text{A}$	50																																									
$2.5\text{A} < I < 16\text{A}$ $U < 250\text{V}$	60																																									
$I < 16\text{A}$ $U > 250\text{V}$	80																																									
$I > 16\text{A}$	100																																									
Rating of plug or portable socket-outlet	Flexible cable (number of cores x cross-section in mm <sup>2</sup> )																																									
	2 x 0,5	2 x 0,75	3 x 0,5	3 x 0,75	(2 or more) x 1																																					
Up to and including 16 A and 250 V	0,1 Nm	0,15 Nm	0,15 Nm	0,25 Nm	0,25 Nm																																					
16A and above 250 V	-	-	-	-	0,35 Nm																																					
Above 16 A	-	-	-	-	0,425 Nm																																					



No.	Items項目	Conditions for Test測試條件	Specification判定規格
10	Breaking Capacity 分斷容量 (IEC320 C19)	<p>The connector and appliance inlet are connected and disconnected 50 times (100 strokes) at a rate of 30 strokes per minute.the length of a stroke of the test apparatus is between 50mm and 60mm,</p> <p>The periods during which the test current is passed from the connection to the subsequent disconnection of the accessories are 1.5(+0.5,-0)s,The test voltage is 275V,the test current is 1.25 times rated current and the power factor is at least 0.95 for 10A and 16A connectors and 0.6±0.05 for other connectors.</p> 	<p>The specimen shall show no damage impairing its further use and the entry holes for the pin shall not show any serious damage</p>

11	Tumbling Barrel Test 滾桶測試 (IEC884 C24.2)	<p>A sample is tested by 10 falls per minute in a tumbling barrel as shown below.</p> <p>The flexible cable shall be cut for a free length of about 100mm from the accessory.</p> <p>The number of falls shown in the table;</p> <table border="1" data-bbox="430 1422 718 1601"> <thead> <tr> <th>Weight</th> <th>Numbers</th> </tr> </thead> <tbody> <tr> <td>&lt;100g</td> <td>1000</td> </tr> <tr> <td>&gt;100g</td> <td>500</td> </tr> <tr> <td>&gt;200g</td> <td>100</td> </tr> </tbody> </table> 	Weight	Numbers	<100g	1000	>100g	500	>200g	100	<p>After the test,no part detached or loosened,the pin shall not turn when a torque of 0.4Nm is applied,first in one direction for 1 min and then in the opposite direction for 1 min.</p>
Weight	Numbers										
<100g	1000										
>100g	500										
>200g	100										

No.	Items項目	Conditions for Test測試條件	Specification判定規格
12	Low Temperature Impact 低溫撞擊測試 (IEC884 C24.4)	<p>The specimen is subjected to an impact test by mean of an apparatus shown in below. At a temperature of <math>-15\pm 2^{\circ}\text{C}</math> for at least 16h. The falling weight of <math>1000\pm 2\text{g}</math> is allowed to fall from a height of 100 mm.</p> 	No damage within the meaning of the standard
13	Resistance to Aging 老化試驗 (IEC884 C16.1)	<p>The temperature in the cabinet is <math>70\pm 2^{\circ}\text{C}</math>. The specimen is kept in the cabinet for 7 days (168h). After the treatment, the specimen is kept at a room temperature and relative humidity between 45%-55% for least 4 days (96h). After, the specimen shall show no crack visible with normal or corrected vision. A forefinger wrapped in a dry piece of rough cloth is pressed on the specimen with a force of 5N. No traces of the cloth shall remain on the specimen and the</p>	After the test, the specimen shall show no damage which would lead to non-compliance with the standard
14	Compression Test 壓迫試驗 (IEC884 C24.5)	<p>A specimen is pressed between two flat surfaces with a force of 150N for 5 min, as shown in fig. After 15 min, remove from the test apparatus and check it. A specimen is subjected to a compression test in the manner as shown in below, the temperature of the pressure plate: <math>23\pm 2^{\circ}\text{C}</math>. Applied force: 300N. The specimen is placed in each position as shown in fig. for 1 min and shall be checked, 15 min after the removal from the test apparatus.</p> 	No damage within the meaning of the standard



# CERTIFICATE OF APPROVAL

ISSUED PURSUANT TO SECTION 21C OF THE ELECTRICITY SAFETY ACT 1945

ISSUED TO:

King-Cord Co Ltd

CLASS OF ARTICLE:

Plug

DESCRIPTION OF ARTICLE:

Three-pin, flat-pin plug (all colours) with insulated live pins, integrally moulded to an Australian approved or <HAR> certified H05VV-F 3G1.0mm<sup>2</sup> flexible cord.

Trade name "King-Cord"

250V 10A

EXAMINED FOR COMPLIANCE WITH: AS/NZS 3112:2000 A1 & 2

TYPE REFERENCE CODE: KC-014

APPROVAL MARK:

Each electrical article of the abovementioned type shall be marked with Approval Number N20221

DATE OF APPROVAL: 04 May 2004

This approval expires 04 May 2009 unless suspended, cancelled, renewed or extended.

for Commissioner for Fair Trading

**ADDENDUM TO CERTIFICATE OF APPROVAL No 20221**

**Particulars of Modification(s)**

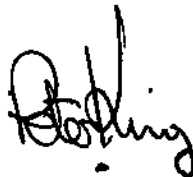
Original plug Type KC-014 alternatively moulded to an Australian approved or <HAR> certified H05VV-F 3G0.75mm<sup>2</sup> flexible cord.

Original plug Type KC-014 alternatively moulded to an Australian approved or <HAR> certified H05VV-F 3G1.5mm<sup>2</sup> flexible cord, and rated at 15A in lieu of 10A.

Plug Type KC-033 similar to original Type KC-014 except for deletion of "earth" pin and integrally moulded to an Australian approved or <HAR> certified H03VV-F 2X0.75mm<sup>2</sup> flexible cord and rated at 7.5A in lieu of 10A.

Plug Type KC-033 alternatively moulded to an Australian approved or <HAR> certified H03VVH2-F2X0.75mm<sup>2</sup> flexible cord.

Approved: 04 May 2004



for Commissioner for Fair Trading

**ADDENDUM TO CERTIFICATE OF APPROVAL No 20221**

**Particulars of Modification(s)**

**Address of King-Cord Co., Ltd now:  
52-5 Siasihhu Shanghu Village  
Yangmei Township, Taoyuan County 326  
TAIWAN R.O.C.**

**Address of factory now:  
King-Cord Co., Ltd  
No.B2, The West Industry Park of Tan Tou  
Song Gang Town, Bao'an District, Shen Zhen City,  
Guangdong, CHINA**

**Approved: 01 July 2004**



**for Commissioner for Fair Trading**

**OFFICE OF FAIR TRADING**ASIC Consumer Protection Agency  
Department of Commerce

Certificate Number: 20414

# CERTIFICATE OF APPROVAL

ISSUED PURSUANT TO SECTION 21C OF THE ELECTRICITY SAFETY ACT 1945

ISSUED TO:

King-Cord Co Ltd

CLASS OF ARTICLE:

Appliance Connector

DESCRIPTION OF ARTICLE:

Non-rewireable appliance connector type C13 integrally moulded to an Australian approved or <HAR> certified H05VV-F 3G1.0mm<sup>2</sup> flexible cord.  
Trade name "King-Cord"  
240V 10A

EXAMINED FOR COMPLIANCE WITH: AS/NZS 3109:1996 A1

TYPE REFERENCE CODE: KC-003

APPROVAL MARK:

Each electrical article of the abovementioned type shall be marked with Approval Number N20414 or N13389

DATE OF APPROVAL: 12 July 2004

This approval expires 12 July 2009 unless suspended, cancelled, renewed or extended.

for Commissioner for Fair Trading

Ref: N20414/1

**ADDENDUM TO CERTIFICATE OF APPROVAL No 20414**

**Particulars of Modification(s)**

Original Model KC-003 alternatively moulded to an Australian approved or <HAR> certified H05VV-F 3G1.5mm<sup>2</sup> flexible cord.

Original Model KC-003 alternatively moulded to an Australian approved or <HAR> certified H05VV-F 3G0.75mm<sup>2</sup> flexible cord of length not exceeding 2 metres.

Approved: 12 July 2004



for Commissioner for Fair Trading

# King-Cord Co.,Ltd

## The schedule for the environment material management

Edition:C

No.	Banned or Restricted Substances	Threshold(ppm)	Controlled Application	Effective Date	Test Methods
1	Cd and the Compound	<5ppm	Plastics,pigments,dyes,paints and inks	Rescricted immediately	EN1122
		<20ppm	Solder ball and solder materials		
		<100ppm	All metal	Rescricted immediately	
2	Pb and the Compound	<100ppm	Plastics,pigments,dyes,paints and inks	Rescricted immediately	US EPA3050B
		<1000ppm	Lead free solders		
		<40000ppm	Free cutting copper and its alloys		
3	Hg and the Compound	Not Detectable	All applications	Banned immediately	US EPA3052
4	Cr <sup>6+</sup> the Compound	Not Detectable	All applications	Rescricted immediately	US EPA 3060A
5	Organic Chlorine Compound	Polychlorinated Biphenyls(PCB)	All applications	Banned immediately	
6		Polychlorinated Naphthalenes(PCN)	All applications	Banned immediately	
7		Polychlorinated Terphenyls(PCT)	All applications	Banned immediately	
8		Other Organic Chlorin Compound	All applications	Banned immediately	
9	Organic Bromine Compound	Polybromides biphenyls(PBB)	All applications	Banned immediately	US EPA 3540C
10		Polybromides Diphenyl Ether(PBDE)	All applications	Banned immediately	US EPA 3550A
11		Other Organic Bromine Compound	All applications	Banned immediately	
12	Organic Tin Compound	Not Detectable	All applications	Banned immediately	ISO 17353
13	Asbesos	Not Detectable	All applications	Banned immediately	
14	Azo Compound	Not Detectable	All applications	Banned immediately	
15	Formaldehyde	Not Detectable	All applications	Banned immediately	
17	The total Hg 、Cd 、 Cr 、 Pb in the packing should below 100ppm			Rescricted immediately	
PS:KING-CORD is RoHS compliant and meets Sony SS-00259 Green parter certification.					



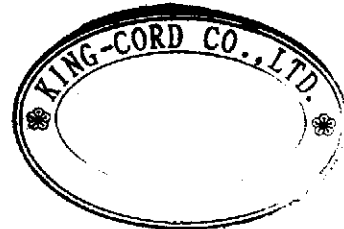
# KING-CORD CO.,LTD

## CERTIFICATE OF COMPLIANCE

Edition:B

KING-CORD hereby warrants and guarantees that our product POWER SUPPLY CORDS is compliant with Directive 2002/95/EC of the Council on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment(RoHS) and SONY SS-00259 standard

Company seal:



President signature:

A handwritten signature in black ink, appearing to be "T. H. S.", written over the "President signature:" label.

Date:2005.9.13