

SPECIFICATION

FOR

SWISS POWER SUPPLY CORDSET (PB FR)

CORD : H05VV-F 3X1.0mm² PVC LEAD FREE

CUSTOMER : VPE/FARNELL COMPONENTS

CUSTOMER'S PART No. : X-525583A-SEV

VOLEX'S REF No. : 132308

ISSUE No. : 001

DATE : 13TH MARCH 2013

CUSTOMER APPROVED :

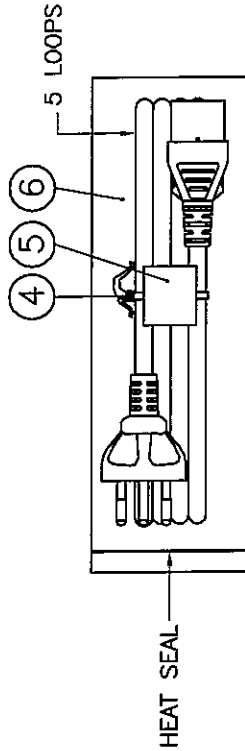
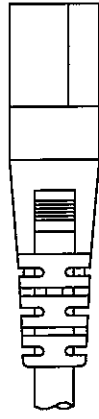
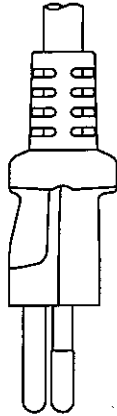
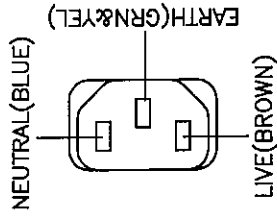
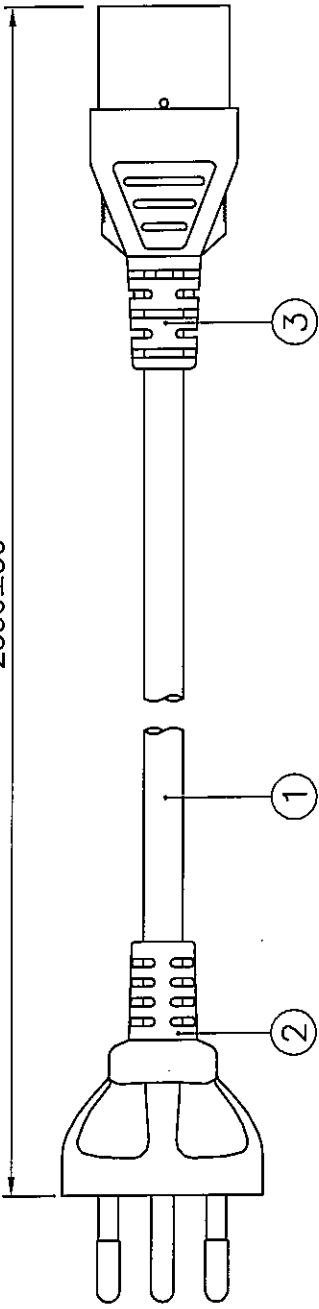
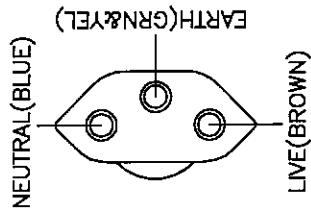
APPROVED BY :	
SIGNATURE :	
APPROVED DATE :	
No. OF PAGES :	



Volex (Asia) Pte Ltd

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Tel : (65) 6788 7833
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2550±50



APPROVED SOURCE FOR CABLE

1. BAO HING(SHENZHEN).
2. TONG YUAN(SHENZHEN).

NOTE :

1. ALL DIMENSIONS IN mm.
2. THE CORD SHALL COMPLY WITH HD21.
3. THE MOLDED PLUG SHALL COMPLY WITH SEV 1011 & IEC 60884-1.
4. THE MOLDED CONNECTOR SHALL COMPLY WITH IEC 60320-1 OR EN 60320-1.
5. LABEL DETAILS : REFER TO LABEL DRAWING NO. : VL-0124.
6. THIS PART CAN BE MANUFACTURED AT ANY LOCATION WHICH HAS SAFETY APPROVAL.

6	BAG LDPE 283X114X0.05 PRT (04)	904028	1
5	PRINTED LABEL	VL-0124	1
4	6" PE TIE WHT	6310055	1
3	IP60G NL7976B BLK	4100115	-
	MOLDED CONNECTOR V1625 (10A 250V)	V1625	1
	IP50G NL7977B BLK	4100098	-
2	MOLDED PLUG SW10ZS3 (10A 250V)	SW10ZS3	1
1	H05WV-F 3X1.00 BLK PVC LEAD FREE	1210365	1
S/N	DESCRIPTION	ITEM NUMBER	QTY
TITLE : SWISS POWER SUPPLY CORDSET (PB FR)		SCALE : N.T.S.	
CUSTOMER : VPE/FARNELL COMPONENTS		PAGE : 1/1	
CUSTOMER PART NUMBER : X-525583A-SEV		ISSUE	
Reference Number : 132308 (HG03-036-13)		001	
SALES : OA	ENGRG : <i>Li</i>	CHECKED BY : <i>MAYING</i>	
Date : 13/3/13	Date : 13/3/13	Date : 13/03/13	

Voilex

DRAWING NUMBER : VL-0124
 REVISION : E

Farnell
 Electronics
 Components

Order Code
 XXXXXXXX

70ref.

50ref.

XXXXXX - ORDER CODE OR CUSTOMER PART NO.

NOTES :

1. ALL DIMENSION IN MM.
2. GENERAL TOLERANCE ±2MM, UNLESS OTHERWISE SPECIFIED.
3. WHITE BACKGROUND WITH BLACK PRINT.
4. PRINTED MARKING SHALL BE DURABLE & LEGIBLE. SURFACE RUBBED WITH THUMB PRESSURE BACK & FORTH 10X, AND INK SHOULD NOT SMEAR.
5. PRINTER/RIBBON TYPE: TEC B-572 OR TEC B-672/905003, 905009, 905028 OR 905036.

DRAWN :	D.TAN	REV	SRM/ECR	BY	DATE	REV	SRM/ECR	BY	DATE
RELEASED :	08/05/02	A	020935	D.TAN	17/05/02	E	110924	ALICE	06/12/11
CHECKED :	Li XJ	B	031767	D.TAN	22/07/03				
APPROVED :		C	050309	Li XJ	01/03/05				
		D	061073	PETER	19/05/06				

S/N.	DESCRIPTION	ITEM NO.	REMARKS
1	LABEL PE SYNTHETIC 50X70MM	6100098	
TITLE : FARNELL LABEL			
PRINT FILE :	FILENAME :	PROJ. :	PAGE :
VLO124E	..\\LABEL\\HOUSE-VL-0124		1/1
SCALE :	1 : 1	THIRD ANGLE	

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REV.	DESCRIPTION	DATE
H	ADD IN 'BLK' FOR GROUNDING COLOUR.	23/12/05
	REMOVE INSULATION COLOR 'BLUE, BROWN, BLACK'	
I	FM. REV. H PER HD STANDARD.	01/09/06

1. PVC FLEXIBLE CORD

1.1 SCOPE

This specification shall be in accordance with HD21.

1.2 CONSTRUCTION

CONDUCTOR	ANNEALED COPPER WIRE
△ INSULATION	PVC (BLUE, BROWN, GREEN&YELLOW)
JACKET	PVC

ITEM	UNIT	SPEC. VALUE
TEMPERATURE RATING	°C	70
RATED VOLTAGE	V	300/500
NO. OF CORE	NO.	3
CONDUCTOR NOMINAL AREA	mm ²	1.00
MIN. AVE. THICKNESS OF INSULATION	mm	0.60
MIN. THICKNESS AT ANY POINT OF INSULATION	mm	0.44
MIN. AVE. THICKNESS OF JACKET	mm	0.80
MIN. THICKNESS AT ANY POINT OF JACKET	mm	0.58
OVERALL DIAMETER OF JACKET	mm	6.3~8.0
DIELECTRIC-STRENGTH TEST IMMERSED IN WATER, 20±5°C FOR MINIMUM 1HR	ON COMPLETED CABLE	2000 V FOR 15 MINS (MINIMUM)
	ON CORES	1500 V FOR 5 MINS (MINIMUM)
VOLTAGE TEST (D.C)	—	2000 V _{a.c} FOR 5 MINS (MINIMUM) OR 5000 V _{d.c} FOR 5 MINS (MINIMUM)
INSULATION RESISTANCE TEST (70°C)	M Ω/km	> 0.01
CONDUCTOR RESISTANCE TEST (20°C)	Ω/km	≤ 19.5

TITLE : CABLE SPECIFICATION
EUROPEAN APPROVED POWER SUPPLY CABLE
H05VV-F 3X1.00mm²

SPEC NO. :	APPROVED BY :	CHECKED BY :	DRAWN BY :	REVISION :
CS-048EU	<i>[Signature]</i>	<i>[Signature]</i>	HONGYAN	1
	DATE :	DATE :	DATE :	PAGE :
	01/09/06	01/09/06	01/09/06	1/1

Volex

REV.	DESCRIPTION	DATE
A	INITIAL RELEASE.	12/10/02
B	UPDATE MARKING DETAILS.	19/01/05
	UPDATE THE FORMAT AS SHOWN.	
	ADD IN '(EU/SAA/SAB/IEC)' ON THE TITLE.	

CABLE MARKING

BAO HING (SHENZHEN)

⚠ :- H05W-F 3G1.0mm² <VDE> KEMA-KEUR +s+s+s
 :<ÖVE> CEBEC IEMMEQU SABS 1574 (S) (N) (D) (FI)
 BAOHING GTSA-3 N14586 CE LF

DRAWN	LI XF	19/01/05	FILENAME :	TITLE : CABLE MARKING (EU/SAA/SAB/IEC) ⚠
CHECK	<i>Walt</i>	19/1/05	CABLE MARKING/ BH/H05/H05W-F	
APPR	<i>Changshu</i>	19/01/05	3X1.0 LF- BH	
SCALE	N.T.S.	REV.	B	Volex (Asia) Pte Ltd <small>Confidential property of Volex. Information contained herein shall not be disclosed to others, reproduced or used for any other purposes except as authorized in writing by an authorized official of volex asia.</small> ⚠
REFERENCE : H05W-F 3X1.0mm ² LF				

REV.	DESCRIPTION	DATE
B	REMOVE "-0476" ON FRENCH MARK.	06/01/03
C	UPDATE FORMAT AS SHOWN.	21/01/05
	ADD IN '(EU/SAA/SAB/IEC)' ON THE TITLE.	

CABLE MARKING

TONG YUAN (SHENZHEN)

: - H05W-F 3G1.0mm² <VDE> KEMA-KEUR CEBEC +++++ <ÖVE>
 ⓓ Ⓢ Ⓝ ⓕ IEMMEQU S/370 SABS 1574 NF-USE TONGYUAN LF

DRAWN	CHEVY	21/01/05	FILENAME :	TITLE :
CHECK	<i>Joseph</i>	21/01/05	C-MARKING/TONG	CABLE MARKING (EU/SAA/SAB/IEC)
APPR	<i>Wang</i>	21/1/05	YUAN/H05/H05W -F 3X1.0 LF-TY-SZ	
SCALE	N.T.S.	REV.	C	△ <i>Volex (Asia) Pte Ltd</i>
REFERENCE :				Confidential property of Volex. Information contained herein shall not be disclosed to others, reproduced or used for any other purposes except as authorized in writing by an authorized official of volex asia.
H05W-F 3X1.0mm ² LF				

2. PLUG	REV	DESCRIPTION	DATE
	O	ADD IN CATALOG NO. 'SW10ZS2','SW10ZS3','SW10BS2',	30/05/12
		VPSW10ZS2'&'VPSW10ZS3'.	
P	ADD IN CATALOG NO. 'SW10DS2' & 'SW10DJS2'.	15/06/12	

2.1. SCOPE

The plug shall be in accordance with SEV 1011 & IEC 60884-1.

2.2. CONSTRUCTION

The plug construction shall comply with our catalogue No: MP222, SEV10S,MP232, CH16S3, CH10VS2, CH10VJS2 , CH10DJS2, CH10DS2, VPSW10S2, VPSW10S3, APSW10BS3, SW10ZS2,SW10ZS3,SW10BS2,VPSW10ZS2,VPSW10ZS3,SW10DS2 & SW10DJS2.

2.3. CHARACTERISTICS

NO.	TEST ITEM	DESCRIPTION	TEST RESULT
1	Moisture resistance test	Samples are kept in a humidity cabinet containing air with a relative humidity between 91 to 95% and a temperature of 20°C-30°C for a duration of 48 hours.	No damage
2	Electric strength test	A voltage of A.C 2000V with a trip current of min. 100mA is applied for 1 min after the moisture resistance test.	No flashover and breakdown
3	Insulation resistance test	This test is measured after 1 min. application of D.C 500V after the moisture resistance test.	Min. 5 M Ohm
4	Pressure test	The plug is pressed with a force of 150N for 5 minutes.	The plug shall not have been deformed.
5	Temperature rise test	An alternating current of 10A (0.75mm ²), 12A (1mm ²) or 16A (1.5mm ²) is passed through poles for 1 hour.	The temperature rise at any points shall not exceed 45°C.
6	Bending test	The sample shall be loaded with a weight of 10N for 0.75mm ² or 20N for 1.00mm ² and bigger and the oscillating member shall be moved backward and forward through an angle of 90° (45° on either side of the vertical) the number of flexing being 10,000.A current of 10A (0.75mm ²) or 16A (1.0mm ² and above) is passed through the conductors.	No damage and the voltage drop shall not exceed 10mV.
7	Pin pull test	A pull force of 50N is applied on the pins (in turn) after the plug has been aged for 1 hour at 70°C.	The displacement of the pin shall not be more than 1 mm.

DRAWN:	LI XIA	15/06/12
CHECK:	<i>hong</i>	15/06/12
APPR:	<i>wei</i>	15/6/12
REV:	P	

TITLE:	SWISS PLUG
REFERENCE:	
Volex	

NO.	TEST ITEM	DESCRIPTION	TEST RESULT
8	Tumbling test	The samples are dropped from a height of 50cm onto a steel plate (3mm thick) for a total of 1000 times. A torque of 0.4Nm is applied in one direction for 1 min. first then follow by the other direction for another min. on the pins.	No damage and the pins shall not turn.
9	Cold impact test	The samples are kept in a refrigerator at a temperature of $-15\pm 2^{\circ}\text{C}$ for at least 16 hours. The samples are then allowed to fall by the hammer (1000g) from a height of 10cm.	No damage
10	Heat deformation test	The samples are kept for 1 hour in a heating cabinet at temperature of $100\pm 5^{\circ}\text{C}$.	No damage
11	Heat pressure test	The samples are applied 20N (2.04kg) at a temperature of $80\pm 2^{\circ}\text{C}$ for 1 hour.	No damage
12	Ageing test	The samples are kept for 168 hours in a heating cabinet at temperature of $70\pm 2^{\circ}\text{C}$.	No damage
13	Pressure test II	The samples are applied 300N (30.6kg) at a temperature of $20\pm 2^{\circ}\text{C}$ for 1 min.	No damage
14	Cord-anchorage test	The cord is subjected to pulls of 50N (2.5A) or 60N (10/16A) force 100 times without jerk each lasting 1 sec. Thereafter the cord is subjected to a torque of 0.15Nm (2 core 0.75mm^2) or 0.25Nm (others) for 1 min.	The cord shall not be damaged and shall not been displaced by more than 2mm.
15	Ball pressure test	A steel ball of 5mm in diameter is applied with 20N force on the sample at a temperature of $125\pm 5^{\circ}\text{C}$ for 1 hour on the insert.. The sample is than cooled by cold water.	The diameter of the impression shall not exceed 2mm.
16	Glow wire test	The tip of the glow wire heated electrically to $750\pm 10^{\circ}\text{C}$ shall be applied at the portion between the current-carrying pins and for a period of 30s. For all other parts, the wire is heated to $650\pm 10^{\circ}\text{C}$.	Any flame and glowing shall extinguish within 30s after the removal of the glow-wire. There shall be no ignition of the tissue papernor sorching of the board.
17	Abrasion test (only applicable to plugs with insulated pins)	A 1 mm steel wire is used to rub along the pin for 20,000 times. The length of abrasion is approximately 9mm, of which approximately 7mm is over the insulating sleeve. The force applied is 4N.	The sleeve of the pins shall not be damaged to the extent that it may affect safety or impair the further use if the plug.

DRAWN:	LI XIA	15/06/12
CHECK:	<i>hong</i>	15/06/12
APPR:	<i>wei</i>	15/6/12
REV:	P	

TITLE:
SWISS PLUG

REFERENCE:



3. CONNECTOR

REV	DESCRIPTION	DATE
AN	ADD IN CATALOGUE NO. APC13FH.	30/06/11
AO	ADD IN CATALOGUE NO. APC13HC.	09/07/12

3.1. SCOPE


The connector shall be in accordance with IEC 60320-1 or EN 60320-1, Test specification - appliance couplers.

3.2. CONSTRUCTION

The connector construction shall comply with our catalogue No: VAC5S, APC5A, APC5S, APC5M, VAC5AR, APC5SM, DLC5A3, V1625, V1625A, VAC19, VAC17S, VSCC13, AVL13, APC13, APC13S, VSC19, V1625LA, VAC19A, VSCC15, APC5SP, APC13F, V1625BS, APC13G, VAC13A, VAC13S, PIC17S, VIC13A, DLC5U3, VAC13KS, SOC5S, V1625H, VAC19KS, DLC5E3, HPC13A, V1625AT, VAC17A, APC5SF, VCC13, VCC5S, APC13H, VCC17S, VAC19H, APC13FH & APC13HC "All connectors complying to Standard Sheet C5, C13, C15, C15A, C17 and C19"

3.3. CHARACTERISTICS

NO.	TEST ITEM	DESCRIPTION	TEST RESULT
1.	Moisture resistance test	Samples are kept in a humidity cabinet containing air with a relative humidity between 91 to 95% and a temperature of 20°C-30°C for a duration of 48 hours.	No damage
2.	Electric strength test	Voltages of 3000V±60V and 1500V±60V, with min. trip current of 100mA is applied for 60s±5s between current-carrying contacts and body and between each contacts respectively after the moisture resistance tests.	No flashover and breakdown
3.	Insulation resistance test	This test is measured with a D.C 500V after the moisture resistance test. Readings are taken after 60s ± 5s of application of voltage.	Min. 5 M Ohm
4.	Withdrawal force test	<p>i) Min. 1.5N (2N for 16A) - A single pin made to the minimum dimension is inserted into the connector. The pin, together with the weight should exert a force of 1.5N (2N for 16A connector). Each individual pole of the connector is tested separately.</p> <p>ii) Max. 50N (60N for 16A) - Insert and withdraw the connector from a socket having pin dimension to the maximum and shroud dimension to the minimum for 10 times. The connector is then inserted again into the socket hang with a total weight of 50N(60N for 16A). The weight consist of a principal weight which is 90% of the total weight and a supplementary weight of 10%.</p> <p>The test is repeated for hot connector with temperature of 120°C±2°C on the pins.</p>	<p>i) The pin with the weight should not be withdrawn from the connector for more than 3 seconds.</p> <p>ii) The connector shall be withdrawn from the socket. If not the supplementary weight is lifted from a height of 5cm and drop. The connector must be withdrawn.</p> <p>The test is repeated after temperature rise test.</p>

DRAWN:	LI XIA	09/07/12	TITLE: EUROPEAN & BRITISH APPLIANCE COUPLERS
CHECK:	<i>Long</i>	09/07/12	
APPR:	<i>Wei</i>	9/7/12	
REV:	AO		
REFERENCE:			

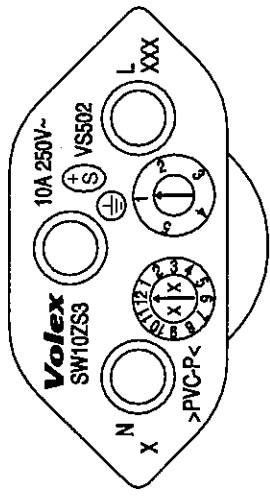
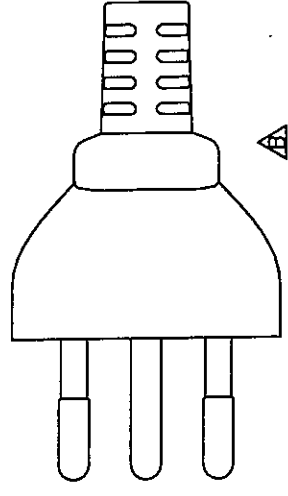
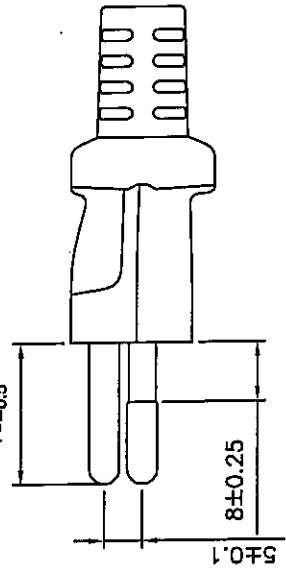
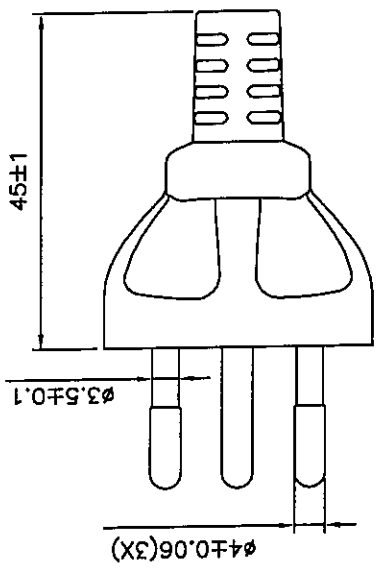
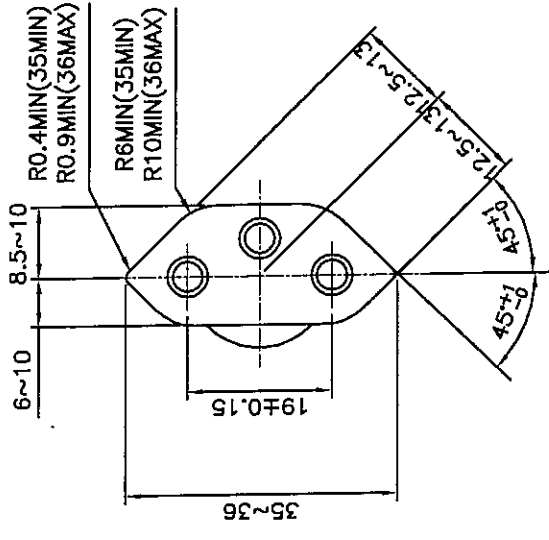
NO.	TEST ITEM	DESCRIPTION	TEST RESULT
5.	Glow wire test	Glow wire is applied for 30s with temperature of 750°C on inserts and housings retaining contacts and 650°C on elsewhere.	Flame (if any) shall be self-extinguished within 30s . upon the removal of the glow wire and molten droplets shall not ignite paper.
6.	Bending test	The sample shall be loaded with a weight of 10N for 0.75mm ² or 20N for 1.00mm ² or bigger and the oscillating member shall be moved backward and forward through an angle of 90°(45° on either side of the vertical) the number of flexing being 20,000.A rated current is applied. For round cord, the sample is turned 90 degree around the axis of cable after 10,000 cycles. The flexing is further completed in this axis. Flat cable is flexed only along the bigger axis of the cable.	There shall be no complete breakage of any of the conductor. Broken conductor shall not have pierced the insulation.
7.	Tumbling test	The sample is dropped from a height of 50cm onto a steel plate(3mm thick) for a total of 500 times.	No damage to impair further use of connector.
8.	Breaking capacity test	The connector is connected and disconnected 50 times (100 strokes) with the inlet at a rate of 30 strokes per minute with 275V and 1.25 times of rated current.	No flashover or sustained arcing during the test and no damage to impair further use of connector.
9.	Normal operation test	Test is similar to breaking capacity except that the test voltage is 250V with the connector connected and disconnected with the inlet for 1000 times (2000 strokes) with rated current and 3000 times (6000 strokes) without current.	Withstand electric strength at 1500V for 1 min, and show no damage.
10.	Temperature rise test	An alternating current at 1.25 times rated current is passed through the current carrying contacts for 1 hour.This is repeated for connector with earth contact passing current between earth and each of the current carrying contacts.	The temperature rise shall not exceed 45K.
11.	Cord-anchorage test	The cord is subjected to pulls of 50N(2.5A) or 60N(others) for 100 times each time for 1 sec. without jerk.Thereafter the cord is subjected for 1 min. to a torque of 0.15Nm(0.75mm ²) or 0.25Nm(others).	The cord shall not be damaged and shall not been displaced by more than 2mm.
12.	Heat deformation test	Samples are kept for 1 hour in a heating cabinet at temperature of 100±2°C.	No damage to impair further use of connector.
13.	Heat pressure test	A pressure of 20N is applied at a temperature of 100°C ± 2°C for 1 hour.	No damage to impair further use of connector.

DRAWN:	LI XIA	09/07/12	TITLE: EUROPEAN & BRITISH APPLIANCE COUPLERS
CHECK:	<i>song</i>	09/07/12	
APPR:	<i>WES</i>	9/7/12	
REV:	AO		
REFERENCE:			Volex

NO.	TEST ITEM	DESCRIPTION	TEST RESULT
14.	Aging test	The samples are kept for 168 hours in a heating cabinet at a temperature of $80\pm 2^{\circ}\text{C}$.	No damage & marking shall be legible.
15.	Ball pressure test	A ball of 5mm in diameter is applied on the connector with the following temperature with 20N force for 1 hour. i) 125°C for hot connectors. ii) 125°C for parts retaining current carrying parts and earth circuit. iii) 75°C for other parts for cold connector. The connector is then cooled down to room temperature with cold water.	The diameter of the impression shall not exceed 2mm.

DRAWN:	LI XIA	09/07/12	TITLE: EUROPEAN & BRITISH APPLIANCE COUPLERS
CHECK:	<i>Li Xia</i>	09/07/12	
APPR:	<i>Li Xia</i>	9/7/12	
REV:	AO		
REFERENCE:			Volex

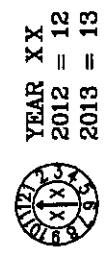
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE.	24/05/12
B	ADD IN A VIEW PER MOLD DWG..	20/06/12



MARKING DETAILS

NOTES:

- 1.) ALL DIMENSIONS IN mm.
- 2.) X - CAVITY NO.(OPTIONAL)
- 3.) XXX - MANUFACTURING LOCATION.
- 4.) YEAR & MONTH & WEEK CODE INSERT

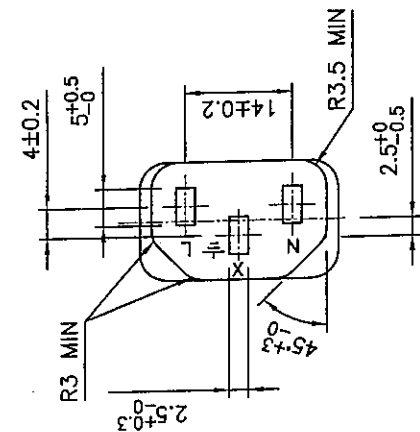


HG	HENG GANG (CHINA)	X	DRAWN	HONGYAN	20/06/12	FILE NAME :	TITLE :
SM1/SMI	ZHONGSHAN (CHINA)	X	CHECK	hongyan	20/06/12	A-PLUG/EURO/ GENERAL/SW10ZS3	MOLDED PLUG SW10ZS3
VH	HANOI (VIETNAM)		APPR		20/06/12	-TMW-SWISS	(YEAR, MONTH & WEEK CODE)
B	BATAM (INDONESIA)	X	REV.	B	SCALE	N.T.S.	
VC	CHENNAI (INDIA)		REFERENCE :	SWISS APPROVAL			
MANUFACTURE LOCATION MARK		(* X * IS APPLICABLE ONLY)					

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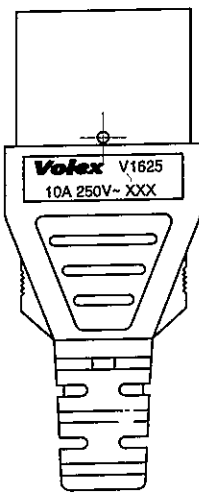
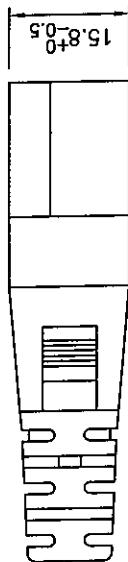
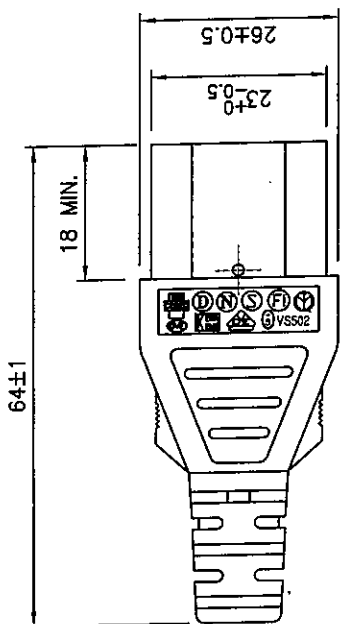
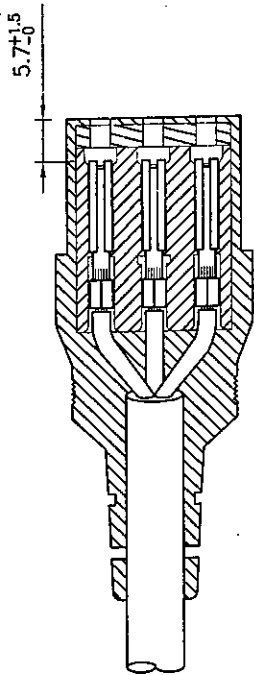
REV.	DESCRIPTION	DATE
J	UPDATE FORMAT AS SHOWN. REMOVE THE CLOSED FACTORY FM. MANU. LOC. MARK.	02/11/06
K	REMOVE THE CLOSED FACTORY FROM MANU. LOCATION MARK.	23/07/09



Voilex V1625
10A 250V~ XXX



MARKING DETAILS



NOTES :

- 1.) ALL DIMENSIONS IN mm.
- 2.) X - CAVITY NO. (OPTIONAL)
- 3.) XXX - MANUFACTURING LOCATION

HG	HENG GANG (CHINA)	X	DRAWN	DIAN SH	23/07/09	FILE NAME :	MOLDED CONNECTOR		
SM1	ZHONGSHAN (CHINA)	X	CHECK	hengsh	23/07/09	A CONN/EURO/	V1625		
VH	HANOI (VIETNAM)	X	APPR	Wang	30/7/19	GENERAL/V1625-			
B	BATAM (INDONESIA)	X	REV.	K	SCALE	EUROPEAN			
VC	CHENNAI (INDIA)	X	REFERENCE :	N.T.S.					
MANUFACTURE LOCATION MARK		X	EUROPEAN APPROVAL						
(' X ' IS APPLICABLE ONLY)									

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