

SPECIFICATION

FOR

EUROPEAN POWER SUPPLY CORD (PB FR)

CORD : H05VV-F 3X1.00mm² PVC LEAD FREE

CUSTOMER : VPE/FARNELL

CUSTOMER'S PART No. : 1124386

VOLEX'S SPEC. REF. No. : 182209

ISSUE No. : 001

DATE : 09TH FEBRUARY 2018

CUSTOMER APPROVED :

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

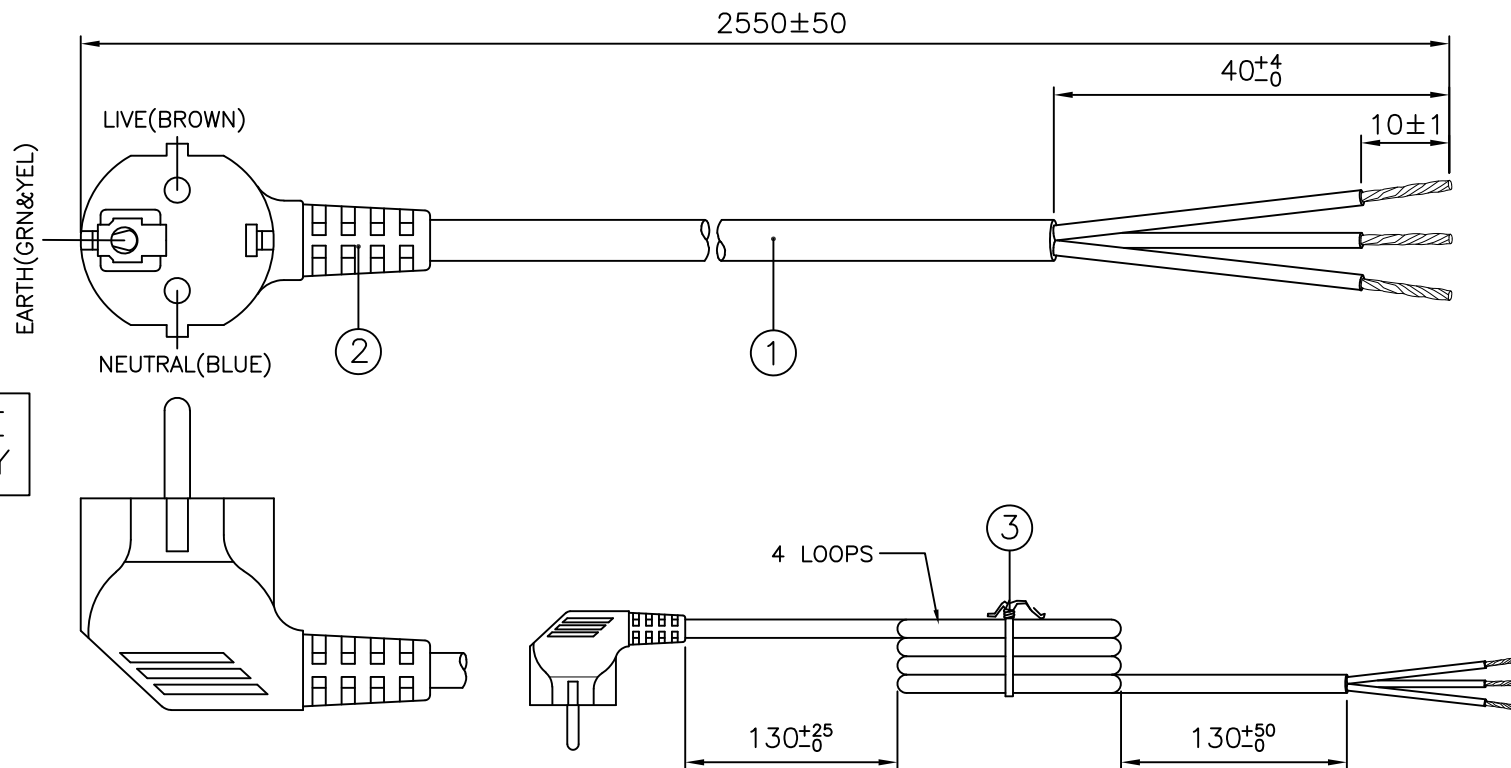


Volex (Asia) Pte Ltd

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APPROVED SOURCE FOR CABLE

1. TA HSING(SHENZHEN).
2. BAO HING(SHENZHEN).
3. TONG YUAN(SHENZHEN).

NOTE :

1. ALL DIMENSIONS IN mm.
2. THE CORD SHALL COMPLY WITH EN 50525-2-11.
3. THE MOLDED PLUG SHALL COMPLY WITH VARIOUS EUROPEAN COUNTRIES' CONFIGURATION (NATIONAL STANDARD) AND TESTED TO IEC 60884-1.
4. CONNECTOR TO THE PLUG IS IN REVERSE POLARITY.
5. THIS PART CAN BE MANUFACTURED AT ANY LOCATION WHICH HAS SAFETY APPROVAL.

3	6" PE TIE WHT	6310055	1
	IP60G NL7976B BLK	4100115	-
2	MOLDED PLUG M2511A (16A 250V)	M2511A	1
1	H05VV-F 3X1.00 BLK PVC LEAD FREE	1210365	1
S/N	DESCRIPTION	ITEM NUMBER	QTY
TITLE : EUROPEAN POWER SUPPLY CORD (PB FR)		SCALE : N.T.S.	
CUSTOMER : VPE/FARNELL		PAGE : 1/1	
CUSTOMER PART NUMBER : 1124386		ISSUE	
Reference Number : 182209 (VPE02-136-18)		001	
SALES :	QA :	ENGRG : <i>Feng</i>	CHECKED BY : <i>Li Xia</i>
DATE :	DATE :	DATE : 09/02/18	DATE : 09/02/18
		DRAWN BY : LI XIA	
		<i>Voilex (Asia) Pte Ltd</i>	
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REV.	DESCRIPTION	DATE
I	REMOVE INSULATION COLOR 'BLUE, BROWN, BLACK'	01/09/06
	FM. REV. H PER HD STANDARD.	
J	CHANGE THE COMPLIANCE STANDARD	23/12/13
	PER SAFETY.	
	UPDATE FORMAT AS SHOWN.	

1. PVC FLEXIBLE CORD

1.1 SCOPE

This specification shall be in accordance with EN 50525-2-11. 

1.2 CONSTRUCTION



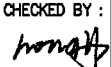
CONDUCTOR	ANNEALED COPPER WIRE
INSULATION	PVC (BLUE, BROWN, GREEN&YELLOW)
JACKET	PVC

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 IMMERSSED 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 Va.c FOR 5 MINS (MINIMUM) OR 5000 Vd.c FOR 5 MINS (MINIMUM)
INSULATION RESISTANCE TEST (70°C)	MΩ 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. : CS-048EU	APPROVED BY :	CHECKED BY :	DRAWN BY :	REVISION :	 Voilex (Asia) Pte Ltd <small>Confidential property of Voilex. 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 voilex asia.</small>
	DATE :	DATE :	DATE :	PAGE :	
			HONGYAN	J	
	30/12/13	27/12/13	23/12/13	1/1	

REV.	DESCRIPTION	DATE
D	CHANGE MARKING PER ECN004-15.	18/02/16
	ADD IN NOTE 1.	
E	REMOVE OLD MARKING PER ECR#160527.	21/09/16
	REMOVE NOTE 1.	

CABLE MARKING

TA HSING(SHENZHEN)



◁VDE▷ KEMA-KEUR CEBEC IEMMEQU ⓓ Ⓝ Ⓢ ⓕ

◁ÖVE▷ +s+s+s NF-USE Q050104 IEC 60227 53 H05W-F
300/500V 3G1.0mm² TA HSING INDUSTRIES LTD. LF

DRAWN	LI XIA	21/09/16	FILENAME :	TITLE : CABLE MARKING (EU/SAA/IEC)
CHECK	<i>[Signature]</i>	21/09/16	CABLE MARKING	
APPR	<i>[Signature]</i>	21/09/16	TH(SZ)/H05W-F	
SCALE	N.T.S.	REV.	3X1.00 - LF	
REFERENCE :				<i>Volex (Asia) Pte Ltd</i>
H05W-F 3G1.0mm ² LF				
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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	W. Li	19/01/05	CABLE MARKING/ BH/H05/H05W-F	
APPR	Changshun	19/01/05	3X1.0 LF- BH	
SCALE	N.T.S.	REV.	B	
REFERENCE :				Voletx (Asia) Pte Ltd <small>Confidential property of Voletx. 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 voletx asia.</small>
H05W--F 3X1.0mm ² LF				

REV.	DESCRIPTION	DATE
E	REMOVE OLD MARKING PER ECR140326	20/05/15
	REMOVE NOTE 1.	
F	ADD NEW MARKING AS SHOWN.	18/12/17
	REMOVE TITLE 'SAB' APPROVAL	

CABLE MARKING

TONG YUAN (SHENZHEN)

H05VV-F 3G1.0mm² <VDE> KEMA-KEUR CEBEC +++++ <ÖVE>

Ⓓ Ⓢ Ⓝ Ⓕ IEMMEQU SABS 60227-5 NF-USE 1321FC TONGYUAN LF

OR

⚠ H05VV-F 3G1.0mm² <VDE> KEMA-KEUR CEBEC +++++ <ÖVE>

Ⓓ Ⓢ Ⓝ Ⓕ IEMMEQU NF-USE 1321FC TONGYUAN LF

DRAWN	JIN JU	18/12/17	FILENAME :	TITLE : CABLE MARKING ⚠ (EU/IEC)
CHECK	Feng	18/12/17	C-MARKING/TONG	
APPR	Keith	18/12/17	YUAN/H05/H05W	
SCALE	N.T.S.	REV.	F	
REFERENCE :				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>
H05VV-F 3X1.0mm ² LF				

2. PLUG

REV	DESCRIPTION	DATE
AB	ADD IN CATALOGUE 'VNEU16A3'.	16/05/16
AC	ADD IN CATALOGUE 'CSEU16S3'.	30/10/17

2.1. SCOPE

The plug shall be in accordance with various European countries' configuration (national standard) and tested to IEC 60884-1 "Plugs and socket-outlets for household and similar purposes - Part 1: General requirements.

2.2. CONSTRUCTION

The plug construction shall comply with our catalogue No: M3204, EUH16S2, MP2210 EUC6, M2511, M2511A, EU10SC3, EU16VS2, EU16VJS2, EU16CS3, PH16CS3, PH16HA3, EU16CA3, EU16DS2, EU16DJS2, EU16JS2, VPEU16S3, GPEU16S3, VPEU16S2, DS16CS2, APEU16S3, APEU16BS3G, DS16ES2, APEU16CS3, APEU16CS3G, DLEU16S3, LSEU16THA3, VNEU16S3, VNEU16A3 & CSEU16S3.

2.3. CHARACTERISTICS

NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
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	30/10/17
CHECK:	Feng	30/10/17
APPR:	Keith	30/10/17
REV:	AC	

TITLE :
EUROPEAN PLUG
(IEC 60884-1)

REFERENCE:

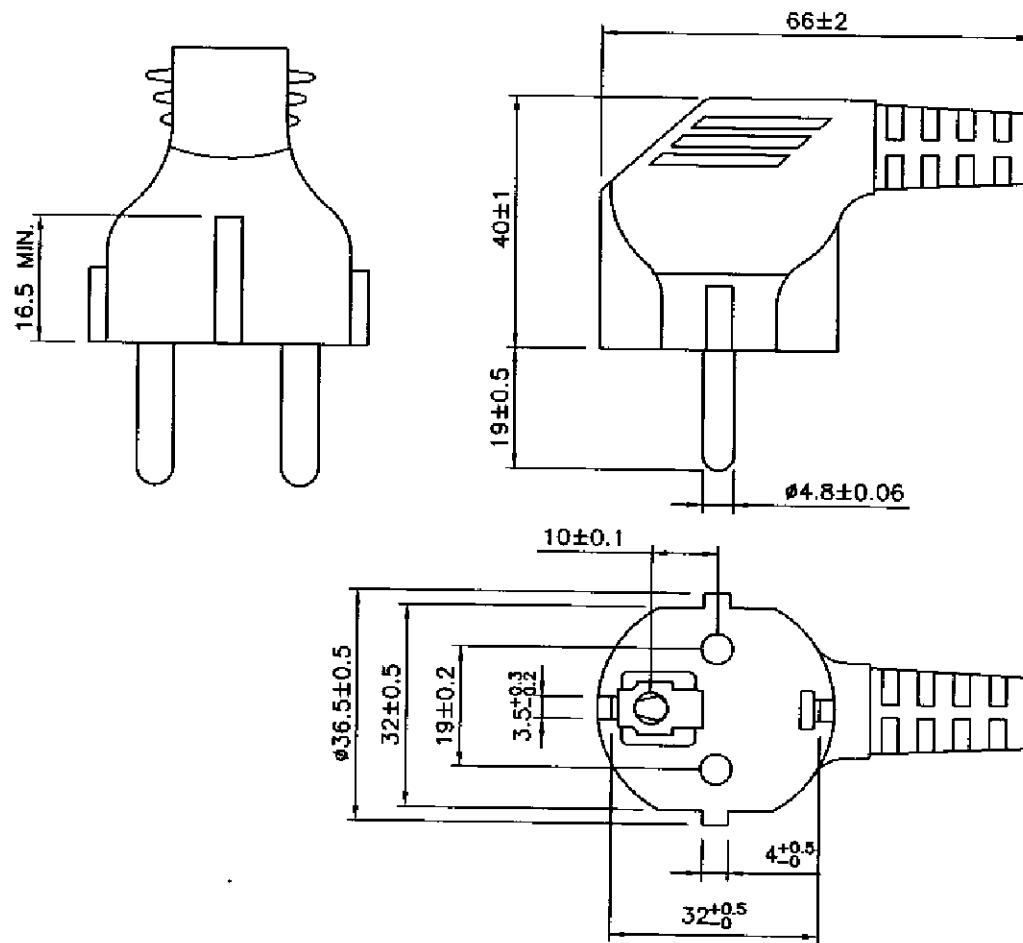
Voletx (Asia) Pte Ltd

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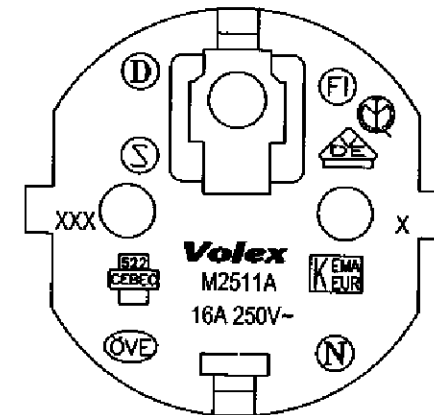
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NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
8	Tumbling test	The samples are dropped from a height of 50cm onto a steel plate (3mm thick) for a total of 1000 times. A torque of 0.4Nm is applied in one direction for 1 min. first then follow by the 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 paper or scorching of the board.

DRAWN:	LI XIA	30/10/17	TITLE : EUROPEAN PLUG (IEC 60884-1)
CHECK:	Feng	30/10/17	
APPR:	Keith	30/10/17	
REV:	AC		
REFERENCE:			Volex (Asia) Pte Ltd
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REV.	DESCRIPTION	DATE
	UPDATE FORMAT AS SHOWN.	
J	REMOVE THE CLOSED FACTORY FROM MANU.LOCATION MARK.	03/11/06
K	REMOVE THE CLOSED FACTORY FROM MANU. LOCATION MARK.	20/07/09



MARKING DETAILS

NOTES :

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



HG	HENG GANG (CHINA)	X	DRAWN	LI XIA	20/07/09	FILE NAME :	TITLE :	
SM1	ZHONGSHAN (CHINA)	X	CHECK	<i>hanshi</i>	22/10/09	A-PLUG/EURO	MOLED PLUG M2511A	
VH	HANOI (VIETNAM)	X	APPR	<i>Walter</i>	29/7/09	/GENERAL/ M2511A-EURO		
B	BATAM (INDONESIA)	X	REV.	K	SCALE	N.T.S.	<i>Volex (Asia) Pte Ltd</i> <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>	
VC	CHENNAI (INDIA)	X	REFERENCE :					
MANUFACTURE LOCATION MARK (' X ' IS APPLICABLE ONLY)			EUROPEAN APPROVAL					