SPECIFICATION

FOR

BRITISH POWER SUPPLY CORDSET (PB FR)

CORD : H05VV-F 3X0.75mm² PVC LEAD FREE

CUSTOMER

: VPE/FARNELL

CUSTOMER'S PART No. : 2467619

VOLEX'S SPEC. REF. No.: 143111

ISSUE No.

: 002

DATE

: 29TH JANUARY 2015

CUSTOMER APPROVED :

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



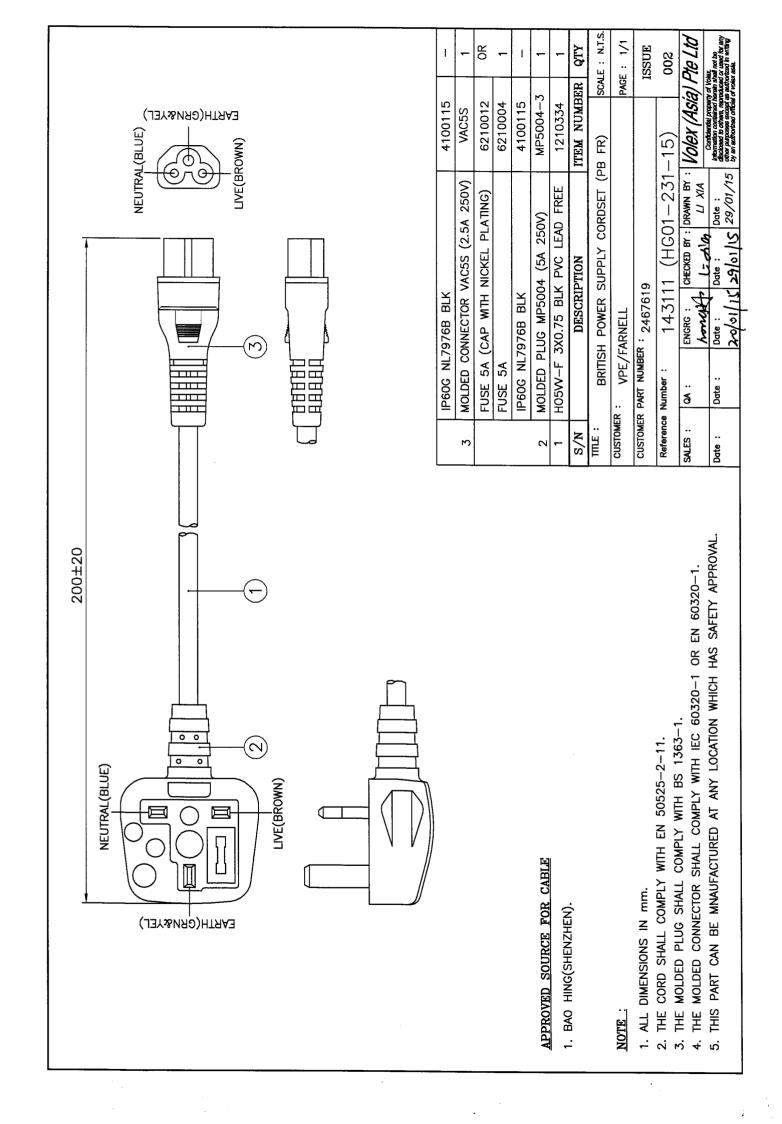
Volex (Asia) Pte Ltd

35 Tampines St. 92 Singapore 528880

Tel: (65) 6788 7833 Fax: (65) 6788 7822

AMENDMENT RECORD

REF. No.	DESCRIPTION OF CHANGES	DATE
143111	(1) FIRST SUBMISSION.	26/11/14
(HG11-024-14)		
ISSUE : 001		
143111	(1) ADD IN CUSTOMER P/N '2467619' ON COVER PAGE &	29/01/15
(HG01-231-15)	ASSEMBLY DWG. PAGE.	
ISSUE : 002		
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REV.	DESCRIPTION	DATE
E	UPDATE VALUES AS PER PRODUCT SAFETY.	28/07/04
	CHANGE THE COMPLIANCE STANDARD	
	PER SAFETY.	
F	UPDATE FORMAT AS SHOWN.	23/12/13

1. PVC FLEXIBLE CORD

1.1 SCOPE

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

1.2 CONSTRUCTION

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

ITEM	And the 18 of th	ÚNIT	SPEC. VALUE
TEMPERATURE RATING		·c	70
RATED VOLTAGE		٧	300/500
NO. OF CORE		NO.	3
CONDUCTOR NOMINAL A	REA	mm ²	0.75
MIN. AVE. THICKNESS C	F INSULATION	mm	0.60
MIN. THICKNESS AT ANY PO	DINT OF INSULATION	mm	0.44
MIN. AVE. THICKNESS C	F JACKET	mm	0.80
MIN. THICKNESS AT ANY POI	NT OF JACKET	mm	0.58
OVERALL DIAMETER OF JACKI	ET	mm	6.0~7.6
DIELECTRIC-STRENGTH TEST IMMERSED IN WATER 20±5°C	ON COMPLETED CABLE		2000V for 15 mins.(minimum)
FOR MINIMUM 1 HOUR	ON CORES	_	1500V for 5 mins.(minimum)
		_	5000V d.c. for 5 mins.(minimum)
VOLTAGE TEST (D.C)		_	2000V a.c. for 5 mins.(minimum)
INSULATION RESISTANCE TEST (70°C)		MΩ km	>0.011
CONDUCTOR RESISTANC	E TEST (20°C)	Ω/km	<=26

TITLE : CABLE SPECIFICATION					
EUR	OPEAN	APPROV	ED POV	VER SU	PPLY CABLE
Н05	VV-F 3	X0.75m	m²		
SPEC NO. :	APPROVED BY :	CHECKED BY:	DRAWN BY :	REVISION:	A Malay Majal Dia Lind
	Hy	honatto	HONGYAN	F	A Volex (Asia) Pte Ltd
CS-038EU DATE: DATE: DATE: PAGE: Information contained herein shall not be disclosed to offers.					
	30/11/13	27/12/13	23/12/13	1/1	reproduced or used for any other purposes except as authorized in writing by an authorized official of volex asia.

	REV.	DESCRIPTION	DATE
	В	ADD IN BAO HING (SU ZHOU).	22/10/02
		UPDATE THE FORMAT AS SHOWN.	
i		ADD IN '(EU/SAA/SAB/IEC)' ON THE TITLE.	
		REMOVE BAO HING (SUZHOU) CABLE	
	С	MARKING DETAILS.	18/01/05

CABLE MARKING

BAO HING (SHENZHEN)

- H05VV-F 3G0.75mm 2 \triangleleft VDE \triangleright KEMA-KEUR + ω + ω + ω + ω \triangleleft ÖVE \triangleright CEBEC IEMMEQU SABS 1574 \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc BAOHING GTSA-3 N14586 **C€** LF

DRAWN	CONGFANG	18/01/05	FILENAME :
CHECK	weiz	20/10/81	CABLE MARKING/
APPR	changelin	18/01/05	8H/H05/H05W-F 3X0.75 LF- BH
SCALE	N.T.S.	REV.	С

TITLE :

CABLE MARKING
(EU/SAA/SAB/IEC) 🛆

REFERENCE :

HO5W-F 3X0.75mm² LF

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2. PLUG

REV	DESCRIPITION	DATE
	CHANGE 'TEST RESULT' TO 'ACCEPTANCE CRITERIA'.	
Y	CHANGE FORMAT AS SHOWN.	23/02/13
Z	ADD IN CATALOG NO. MFUK13A2.	26/04/13

2.1. SCOPE

The plug shall be in accordance with BS 1363 Part 1,

(Specification for up to 13A fused plugs, switched and unswitched socket-outlets)

2.2. CONSTRUCTION

The plug construction shall comply with our catalogue No: MP5004, MP5004A, MP5004AW, MP5004H, MP5004SC, UK13A2, UK13CBA2, UK10SC3, MP5004BS, MP5004V, UK13A3, MP5004DBS, MP5004D, VPUK13A3, VPUK13A2, DS13CA2, APUK13A2, APUK13A3, DS13EA2 & MFUK13A2.

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 85 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. A voltage of A.C 6000V is also applied between current carrying parts and body for 1 min.	No flashover and breakdown
3.	Insulation resistance test	This test is measured with a D.C 500V for 1 min. after the moisture resistance test.	Min. 5 M Ohm
4.	Flexing test	The sample shall be loaded with a weight of 1kg for 0.75mm ² or less, or 2kg for 1.00mm ² and above 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.Rated current of the plug is passed.	No damage to the insulation and the breakage of conductor of each core shall not exceed 10%.
5.	Tumbling test	The samples are dropped from a height of 50cm onto a plywood base(10mm thick) for a total of 5000 times.	No damage
6.	Abrasion test	The pin of sample slopes downwards at angle of 10° to the horizontal. The sample is loaded with a force of 4N on the sleeve of the pin. The number of movement is 20,000 and the length of pin subjected to abrasion is approx. 7mm over the insulating sleeve.	No damage

DRAWN:	SANDY YU	26/04/13	TITLE:
CHECK:	hondy	27/04/19	
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REFERENCE:			Volex (Asia) Pte Ltd
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NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
7.	Heat deformation test	The samples are kept for 1 hour in a heating carbinet at temperature of 70±5°C.	no damage and withstand electric strength test.
8.	Ageing test	The samples are kept for 7 days in a heating carbinet at temperature of 70±5°C. It is then put in room temperature for 4 hours.	no damage
9.	Temperature rise test	Rated current of the plug is passed for at least 4 hours. This test is repeated on the same sample after tumbling barrel test.	Rise in temperature for joints shall not exceed 52K while the rest shall not exceed 37K.
10.	Cord-anchorage test	The cord is subjected to a load of 3kg for (1.0mm ² or smaller) or 6kg (the rest) 25 times without jerk. The cord is then subjected to a torque of 0.15Nm (0.5mm ²), 0.2Nm (0.75mm ²), 0.2SNm (1.0mm ²), 0.3Nm (1.25mm ²), 0.35Nm (1.5mm ²) for 1 min.	Shall withstand a voltage of 3750±75V for 1 min., between each conductor and cord shall not been displaced by more than 2mm.
11.	Pressure test	A force of 20N is applied on the sample for 1 hour at a temperature of $70\pm5^{\circ}$ C.	No damage and shall withstand electric strength and insulation resistance test. The sample must also fit into fig. 5 jig of BS1363.
12.	Ball pressure test	A steel ball of 5mm in diameter is applied with 20N force on the sample at a temperature of 75±5°C for 1 hour. The sample is then cooled by cold water.	The diameter of the impression shall not exceed 2mm.
13	Glow wire test	The tip of the glow wire heated electrically to 750±10°C shall be applied at the portion between the current-carrying pins for a period of 30s.	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.

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REV DESCRIPTION DATE 3. CONNECTOR CHANGE 'TEST RESULT' TO 'ACCEPTANCE CRITERIA' 11/03/14 3.1. SCOPE AQ ADD IN CATALOGUE NO. VAC17KS. 24/02/14

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, AVLC13, 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 & VAC17KS "All connectors complying to Standard Sheet C5, C13, C15, C15A, C17 and C19"

3.3. CHARACTERISTICS

NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
1.	Moisture resistance	Samples are kept in a humidity cabinet con-	No damage
1.	test	taining air with a relative humidity between 91	100 damage
	icst	to 95% and a temperature of 20°C-30°C for a	
		duration of 48 hours.	
2.	Electric strength	Voltages of 3000V±60V and 1500V±60V, with	No flashover
1 2.	test	min. trip current of 100mA is applied for 60s±5s	and breakdown
	test	between current-carrying contacts and body and	and breakdown
		between each contacts respectively after the	
		moisture resistance tests.	
3.	Insulation resistance	This test is measured with a D.C 500V after the	Min. 5 M Ohm
"	test	moisture resistance test.Readings are taken	141111. 3 141 3 1111
	test	after $60s \pm 5s$ of application of voltage.	
4.	Withdrawal	i) Min. 1.5N (2N for 16A) - A single pin made	i) The pin with the weight
	force	to the minimum dimension is inserted into the	should not be withdrawn
	test	connector. The pin, together with the weight	from the connector for
		should exert a force of 1.5N (2N for 16A	more than 3 seconds.
		connector). Each individual pole of the	
		connector is tested seperately.	
		ii) Max. 50N (60N for 16A) - Insert and withdraw	ii) The connector shall be
]		the connector from a socket having pin dimension	withdrawn from the socket.
		to the maximum and shroud dimension to the	If not the supplementary
		minimum for 10 times. The connector is then	weight is lifted from a
		inserted again into the socket hang with a total	height of 5cm and drop.
		weight of 50N(60N for 16A). The weight consist	The connector must be
		of a principal weight which is 90% of the total	withdrawn.
		weight and a supplementary weight of 10%.	
		The test is repeated for hot connector with	The test is repeated after
		temperature of 120°C±2°C on the pins.	temperature rise test.

DRAWN:	MOLLY	24/02/14	TITLE:
CHECK:	monato	74/02/14	EUROPEAN & BRITISH
APPR:	Hy	24/2/14	APPLIANCE COUPLERS
REV:	AQ		
REFERENCE:			Volex (Asia) Pte Ltd
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NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE
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.	CRITERIA 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 connnected 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 $100^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 1 hour.	No damage to impair further use of connector.

DRAWN:	MOLLY	24/02/14
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TITLE: EUROPEAN & BRITISH APPLIANCE COUPLERS

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NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
14.	Aging test	The samples are kept for 168 hours in a heating cabinet at a temperature of 80±2°C.	No damage & marking shall be legible.
15.	Ball pressure	A ball of 5mm in diameter is applied on the	The diameter of the
	test	connector with the following temperature with	impression shall not
		20N force for 1 hour.	exceed 2mm.
		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.	

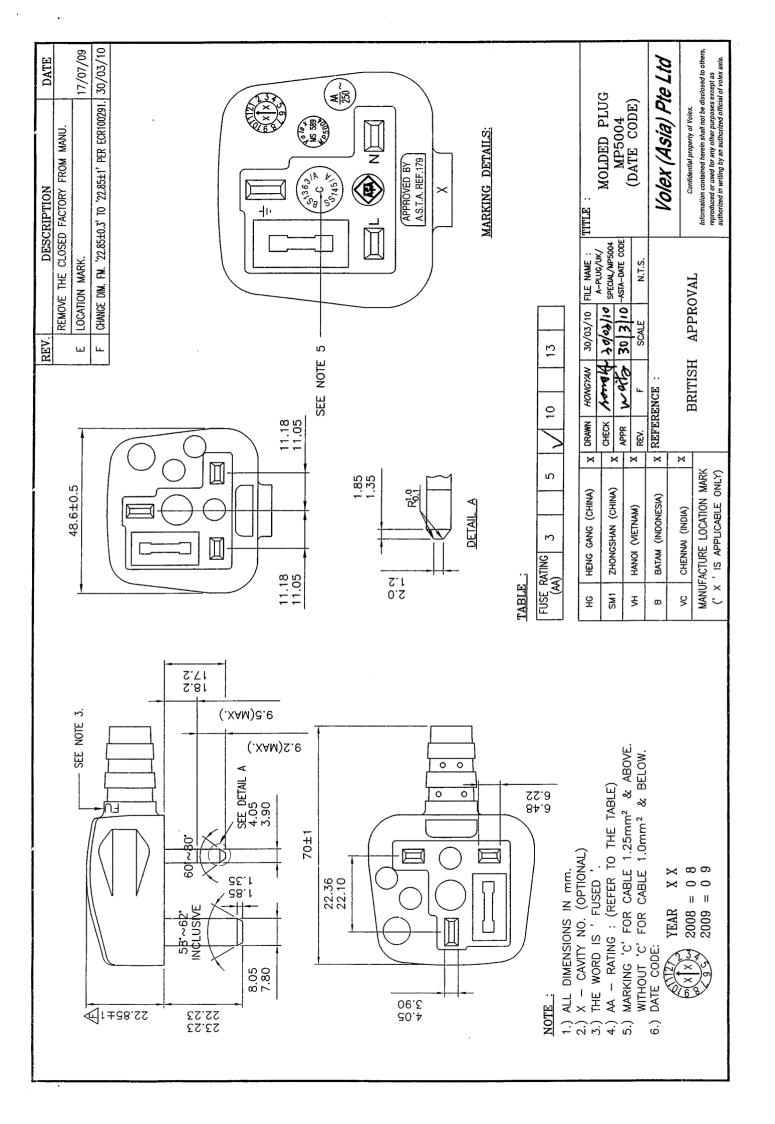
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REV.	DESCRIPTION	DATE
Α	INITIAL RELEASE.	29/06/12

AsiaFuse AF63B-5A 5A BS1362 SS167

DRAWN	HONGYAN,	29/06/12	DEVICION
CHECK	hongy	04/07/12	REVISION:
APPR	NOT	417/12	
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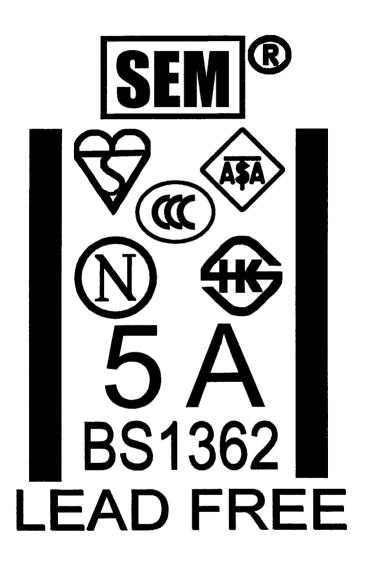
TITLE : LEAD FREE

FUSE (5A)

REFERENCE :

Volex

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DRAWN	HONGYAN	29/06/12	REVISION:	TITLE : LEAD FREE	

REV.	DESCRIPTION	DATE
	ADD IN 'REFERENCE E07.005-B'	
С	IN REFERENCE COLUMN.	31/07/08
D	CHANGE MARKING AS SHOWN.	13/11/12



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REFERENCE :

6210004 (REFERENCE E07.005-B) Volex

REV.	DESCRIPTION	DATE
	ADD IN 'TYPE REFERENCE TDC 180	
F	-5A' IN REFERENCE COLUMN.	14/07/08
G	AMEND NOTE FOR ADD IN ITEM b.	29/08/08

*PRINT BLOCK TOPS WITH MACHINE NUMBERS

Bussmann 5A BS 1362

NOTE:

(1) *PRINT BLOCK TOP (DOT LINE) = BUSSMANN INTERNAL IDENTIFICATION ON MACHINERY.

a: DIFFERENT LOCATION/NUMBER OF DOT LINE INDICATE DIFFERENT MACHINE NUMBER USED.

b: THE FUSE PRODUCE ON THE MACHINE #20 IS WITHOUT THE PRINT BLOCK TOP (DOT LINE).

TDC 180-5A)

SCALE N.T.S. REFERENCE:			G		FUSE (5A)
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