SPECIFICATION

FOR

BRITISH POWER SUPPLY CORDSET (PB FR)

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

CUSTOMER

: ELEMENT14 PTE LTD

CUSTOMER'S PART No. : UK13A3/V1625

VOLEX'S SPEC. REF. No.: 142106/3

ISSUE No.

: 001

DATE

: 09TH JANUARY 2014

CUSTOMER APPROVED:

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



Volex (Asia) Pte Ltd

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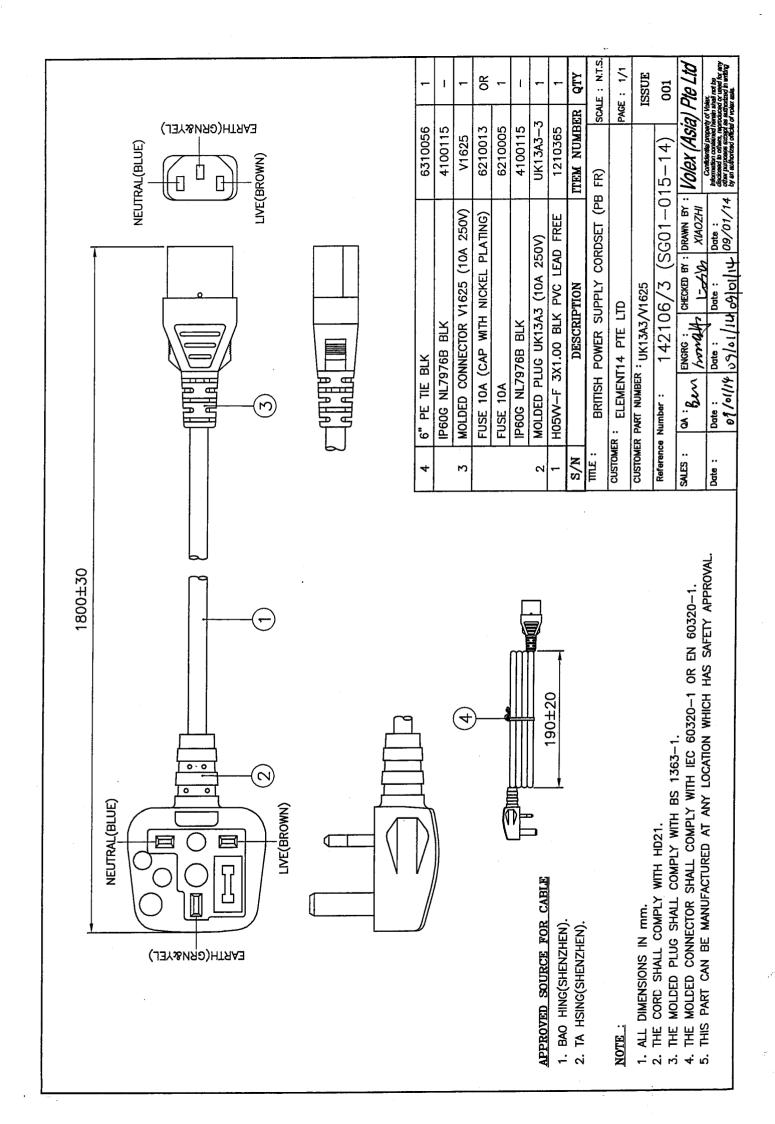
AMENDMENT RECORD

REF. No.	DESCRIPTION OF CHANGES	DATE
142106/3	(1) FIRST SUBMISSION.	09/01/14
(SG01-015-14)		
ISSUE: 001		
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REV.	DESCRIPTION	DATE
Η	ADD IN 'BLK' FOR GROUNDING COLOUR.	23/12/05
	REMOVE INSULATION COLOR 'BLUE, BROWN, BLACK'	
.1	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
\triangle	INSULATION	PVC (BLUE, BROWN, GREEN&YELLOW)
	JACKET	PVC

ITEM		UNIT	SPEC. VALUE
TEMPERATURE RATING	°C	70	
RATED VOLTAGE		٧	300/500
NO. OF CORE		NO.	3
CONDUCTOR NOMINAL AREA		mm ²	1.00
MIN. AVE. THICKNESS OF IN	ISULATION	mm	0.60
MIN. THICKNESS AT ANY POINT OF INSULATION		mm	0.44
MIN. AVE. THICKNESS OF JA	ACKET	mm	0.80
MIN. THICKNESS AT ANY POIN	T OF JACKET	mm	0.58
OVERALL DIAMETER OF JAC	KET	mm	6.3~8.0
DIELECTRIC-STRENGTH TEST IMMERSED	ON COMPLETED CABLE	_	2000 V FOR 15 MINS (MINIMUM)
IN WATER, 20±5℃ FOR MINIMUM 1HR	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 TO	EST (20°C)	Ω/km	<= 19.5

TITLE: CABLE SPECIFICATION

EUROPEAN APPROVED POWER SUPPLY CABLE

HO5VV-F 3X1.00mm²

SPEC NO.:

APPROVED BY: CHECKED BY: DRAWN BY: REVISION:

HOMST HONGYAN | CS-048EU

DATE: DATE: DATE: PAGE:

| 109|05 01/09/06 1/1

REV.	DESCRIPTION	DATE
Α	initial release.	12/10/02
	UPDATE MARKING DETAILS.	
	UPDATE THE FORMAT AS SHOWN.	
В	ADD IN '(EU/SAA/SAB/IEC)' ON THE TITLE.	19/01/05

CABLE MARKING

BAO HING (SHENZHEN)

A:- HO5VV-F 3G1.0mm² < VDE > KEMA-KEUR + \(\sigma + \sigma + \sigma + \sigma \)

OVE > CEBEC IEMMEQU SABS 1574 S N D F

BAOHING GTSA-3 N14586 €€ LF

DRAWN	LI XF	19/01/05	
CHECK	weitz	19/1/05	CABLE MARKING/ BH/H05/H05W-F
APPR	champhin	19/01/05	3X1.0 LF- BH
SCALE	N.T.s.	REV.	В

TITLE :

CABLE MARKING
(EU/SAA/SAB/IEC) 🖄

REFERENCE :

HO5VV-F 3X1.0mm² LF

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	REV.	DESCRIPTION	DATE
		ADD IN NEW MARKING PER ECN006-10.	
	В	ADD IN NOTE 1.	26/07/10
Ì	C	REMOVE OLD MARKING PER ECR101239.	26/10/10

CABLE MARKING

⚠ TA HSING(SHENZHEN)

:- \triangleleft VDE \triangleright KEMA-KEUR CEBEC IEMMEQU \bigcirc N \bigcirc F) \triangleleft ÖVE \triangleright + ω + ω + ω NF-USE-1344 Q050104 H05VV-F 3G1.00mm² TA HSING INDUSTRIES LTD. LF

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DRAWN	WANGHUI	26/10/10 FILENAME	:
CHECK	mi	26/10/10 CABLE MARK	ING V-F
APPR	was	26 10 10 3X1.00 - LF	
SCALE	N.T.S.	REV. C	

TITLE : CABLE MARKING

(EU/SAA/IEC)

REFERENCE :

H05VV-F 3X1.00mm² LF

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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		
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:	pondy	27/04/14		
APPR:	May	27/4/13	BRITISH PLUG	
REV:	z			
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), 0.25Nm (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±5°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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REFERENCE:			Volex (Asia) Pte Ltd
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DATE REV DESCRIPTION 3. CONNECTOR 09/07/12 ADD IN CATALOGUE NO. APC13HC. AO CHANGE 'TEST RESULT' TO 'ACCEPTANCE CRITERIA'. **3.1. SCOPE** 11/03/13

CHANGE FORMAT AS SHOWN.

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

ΑP

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

3.3. CHARACTERISTICS

	CIERISTICS		
NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
1.	Moisture resistance	Samples are kept in a humidity cabinet con-	No damage
	test	taining air with a relative humidity between 91	·
		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
	test	min. trip current of 100mA is applied for 60s±5s	and breakdown
		between current-carrying contacts and body and	
	,	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	
		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:	JIANGHONG	11/03/13
CHECK:	hongy	11/03/13
APPR:	14mg	11/3/13
REV:	AP	

TITLE: EUROPEAN & BRITISH APPLIANCE COUPLERS

REFERENCE:

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

DRAWN:	ЛANGHONG	11/03/13	TITLE:
CHECK:	bongfr	11/03/13	EUROPEAN & BRITISH
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NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERI A
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.	

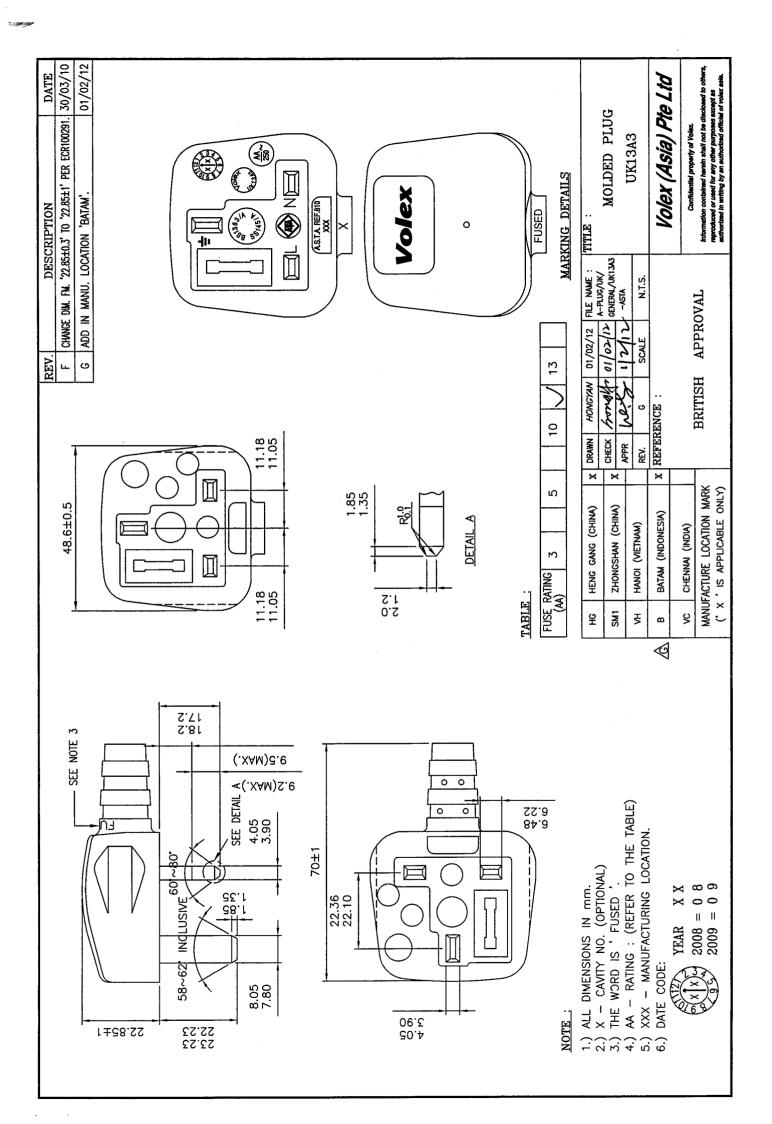
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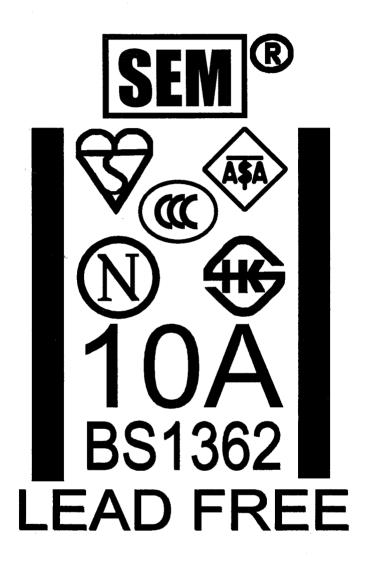
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REV.	DESCRIPTION	DATE	
Α	INITIAL RELEASE.	29/06/12	



REFERENCE :				V		lex	
SCALE	N.T	N.T.S.		A			
APPR	NOS	417	12			FUSE	(10A)
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DRAWN	HONGYAN	29/06,	/12	REVISION:	TITLE :	TEAD	FREE

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

AsiaFuse AF63C-10A 10A BS1362 SS167



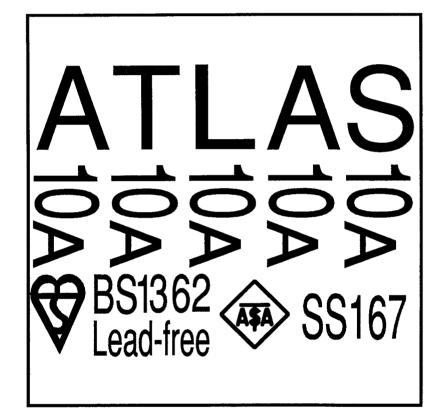


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REFERENCE :

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	REV.	DESCRIPTION	DATE
		ADD IN 'REFERENCE E07.010-C'	
	С	IN REFERENCE COLUMN.	31/07/08
Ī	D	CHANGE MARKING AS SHOWN.	13/11/12



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REFERENCE :

6210005

(REFERENCE E07.010-C)

Volex

REV.	DESCRIPTION	DATE
İ	ADD IN 'TYPE REFERENCE TDC 180	
E	-10A' IN REFERENCE COLUMN.	14/07/08
F	AMEND NOTE FOR ADD IN ITEM b.	29/08/08

*PRINT BLOCK TOPS WITH MACHINE NUMBERS



NOTE:

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

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

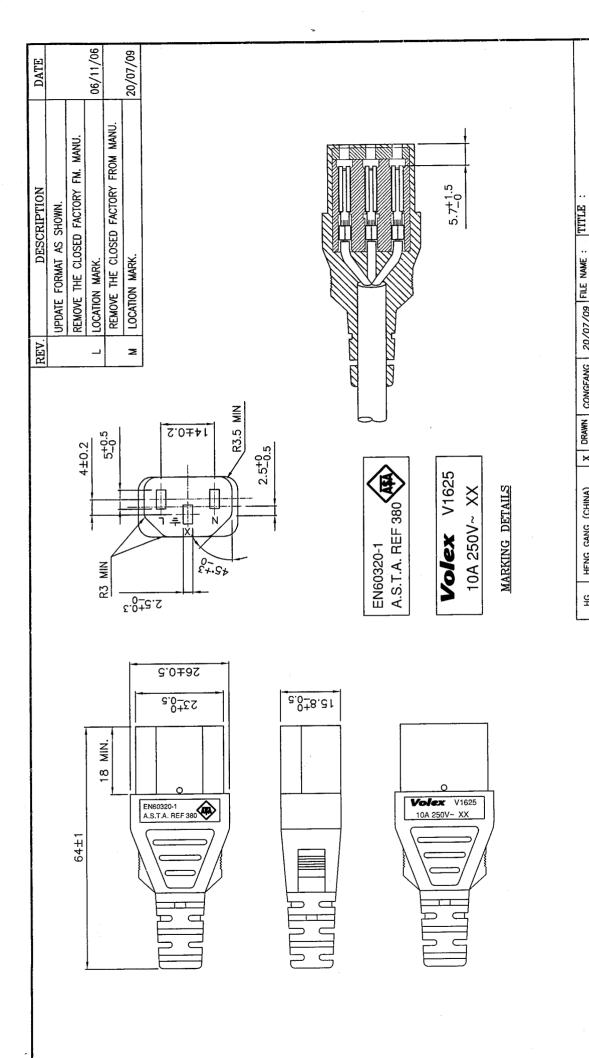
b: THE FUSE PRODUCE ON THE MACHINE #20 IS WITHOUT THE PRINT BLOCK TOP (DOT LINE).

	DRAWN	QUAN SM	29/08/08		TITLE :	LEAD FREE	
Į	APPR		29/08/08			FUSE (10A)	
	SCALE	ALE N.T.S.		F	()		

REFERENCE :

6210013 (TYPE REFERENCE TDC 180-10A)





hong/L 23/03/09 UK/GENERAL/WLZP 31/7/9 V1625-ASTA CONGFANG 20/07/09 FILE NAME : N.T.S. BRITISH APPROVAL 311719 200 x REFERENCE : CHECK APPR 쯠. × × × × MANUFACTURE LOCATION MARK (' \times ' IS APPLICABLE ONLY) HENG GANG (CHINA) ZHONGSHAN (CHINA) BATAM (INDONESIA) HANO! (VIETNAM) CHENNAI (INDIA) SM1 ¥ Š œ 욷 \triangleleft

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MOLDED CONNECTOR

V1625

NOTE :

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