ENGLISH

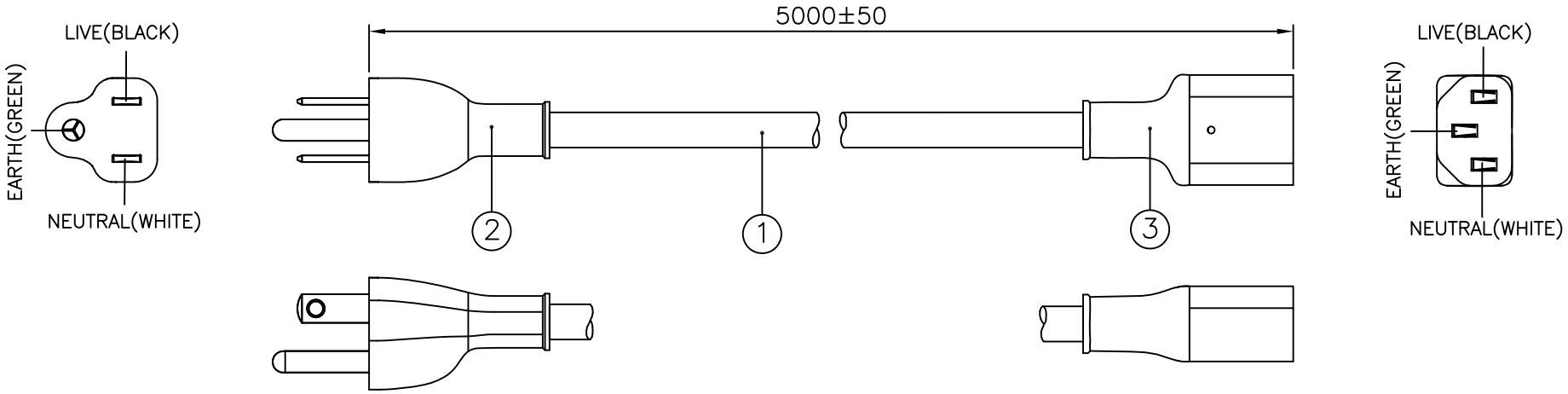
Datasheet

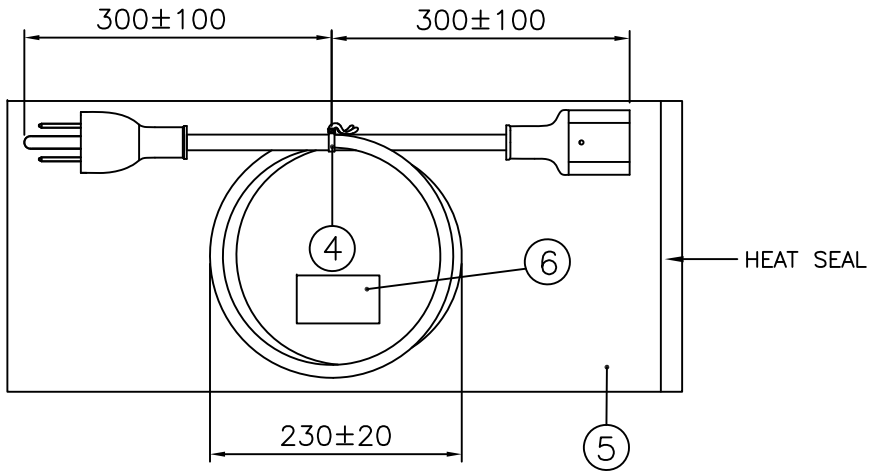
RS PRO 5m Power Cable

Stock No: 146-9130

AMENDMENT RECORD

REF. No.	DESCRIPTION OF CHANGES	DATE
146-9130	(1) FIRST SUBMISSION.	11/09/17
(VPE09–042–17)		
ISSUE : 001		
146-9130	(1) CHANGE CUSTOMER P/N FM. 'VNUS15S3–NVC13S–5.ØM'	30/10/17
(VPE10–075–17)	TO '146913Ø(V–NOVUS US–C13 5M)' ON COVER &	
ISSUE : 002	ASSEMBLY DWG. PAGES.	
146-9130	(1) CHANGE CABLE MARKING FM. 'INK MARK' TO 'INDENTED'	29/11/17
(EVPE11–050–17)	& REMOVE ITEM No. '1810152' FM. ASSEMBLY DWG. PAGE.	
ISSUE : 003		
146-9130	(1) ADD IN PE BAG '904036' & LABEL 'VL–0538'	25/01/18
(VPE01–048–18)	AS SHOWN ON ASSEMBLY DWG. PAGE	
ISSUE : 004	(2) ADD IN NOTE 6 AS SHOWN ON ASSEMBLY DWG. PAGE.	
	(3) ADD IN LABEL DWG. PAGE.	
146-9130	(1) CHANGE LABEL FM. 'VL–0538' TO 'L–T383' & REMOVE	14/02/18
(EVPE02–120–18)	NOTE 6 FROM ASSEMBLY DWG. PAGE.	
ISSUE : 005	(2) CHANGE LABEL DWG. PAGE.	





RS PRO

S/N	DESCRIPTION	ITEM NUMBER	QTY
6	RS LABEL 45X25MM	L-T383	1
5	BAG PE 356X508X0.05	904036	1
4	8" PE TIE BLK	6310062	1
3	IP40G NL792B BLK	4100017	–
	MOLDED CONNECTOR VNC13S (10A 125V)	VNC13S-V	1
2	IP40G NL792B BLK	4100017	–
	MOLDED PLUG VNUS15S3 (10A 125V)	VNUS15S3-V	1
1	SVT 18/3 105°C BWG BLK PVC LEAD FREE(INDENTED)	---	1

TITLE : NORTH-AMERICAN POWER SUPPLY CORDSET (PB FR)			SCALE : N.T.S.
CUSTOMER :			PAGE : 1/1
CUSTOMER PART NUMBER : 1469130(V-NOVUS US-C13 5M)			ISSUE 005
Reference Number : 146-9130			

SALES :	QA :	ENGRG : Alice	CHECKED BY : Feng	DRAWN BY : TIAN SHUO
Date :	Date :	Date : 23/02/18	Date : 19/02/18	Date : 14/02/18

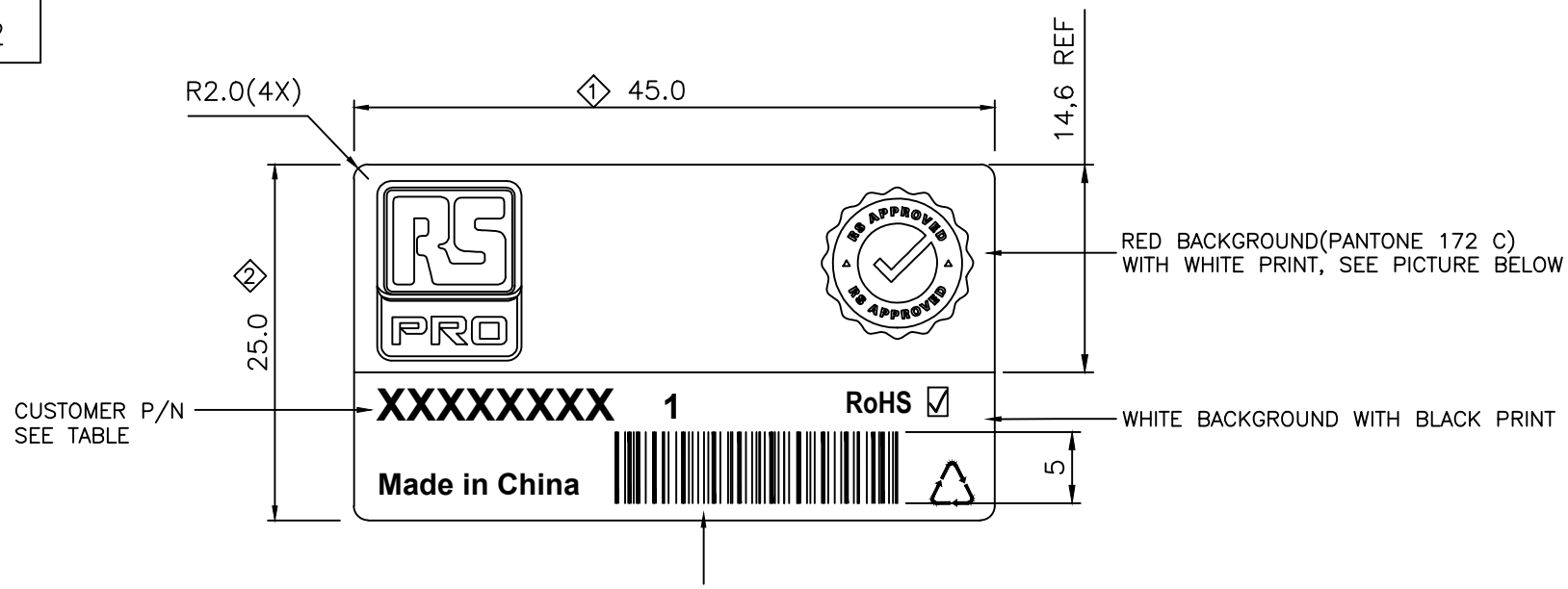
APPROVED SOURCE FOR CABLE

1. BAO HING(SHENZHEN).(VOLEX-ULBH-054-W)

NOTE :

1. ALL DIMENSIONS IN mm.
2. THE CORD SHALL COMPLY WITH NMX-J-436-ANCE + CSA C22.2 NO.49 + UL 62.
3. THE MOLDED PLUG SHALL COMPLY WITH UL498, UL817, CSA C22.2 NO.21-95.
4. THE MOLDED CONNECTOR SHALL COMPLY WITH UL817, CSA C22.2 NO.21-95 AND C22.2 NO. 182.3-M1987.
5. THIS PART CAN BE MANUFACTURED AT ANY LOCATION WHICH HAS SAFETY APPROVAL.

DRAWING NUMBER :	REVISION :
L–T383	2



SPECIFICATION :

PRODUCT NO	AW3209 WITH PP COATING
FACESTOCK MATERIAL	ART PAPER
FACESTOCK THICKNESS	72 uM±10%
FACESTOCK COLOUR	WHITE
FACESTOCK SURFACE FINISH	GLOSSY
ADHESIVE BASE	ACRYLIC EMULSION
SHELF LIFE	1 YEAR

PICTURE FOR COLOUR PRINT

NOTES :

1. ALL DIMENSION IN MM.
2. GENERAL TOLERANCE ±1MM, UNLESS OTHERWISE SPECIFIED.
3. ◇Y CRITICAL DIMENSIONS, WHERE Y IS IN NUMERICAL DIGITS.
4. WHITE BACKGROUND WITH BLACK PRINT.
5. FONT: ARIAL, BOLD.

			REV	IMM/ECR	BY	DATE	REV	IMM/ECR	BY	DATE	TITLE : RS LABEL 45X25MM				
DRAWN :	ALICE		1	XXX	ALICE	03/08/17									
RELEASED :	2017/08/03		2	XXX	ALICE	05/02/18					ITEM NO.: SEE TABLE	FILENAME : ..\LABEL\PREPRINTED\L-0XXX	SCALE : 2 : 1	PROJ. : THIRD ANGLE	PAGE : 1/2
	SIGN	DATE													
CHECKED :	Alice	05/02/18													
APPROVED :															

Form Number : OI-ENG-057-FM006(B)

REV.	DESCRIPTION	DATE
E	ADD IN INSULATION COLOR 'BWGY'.	11/09/06
F	CHANGE COMPLIANCE STANDARD & UPDATE VALUES PER PRODUCT SAFETY.	05/07/07

1. PVC FLEXIBLE CORD

1.1 SCOPE

△E This specification shall be in accordance with NMX-J-436-ANCE + CSA C22.2 NO.49 + UL 62.

1.2 CONSTRUCTION

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

	ITEM	UNIT	SPEC. VALUE
	TEMPERATIRE RATING	°C	105
	MAXIMUM VOLTAGE	V	300
	NO. OF CONDUCTORS	NO.	3
△E	SIZE OF CONDUCTORS	mm² (AWG)	0.824 (18)
△E	CONDUCTOR DIAMETER OF INDIVIDUAL WIRES	mm (in)	0.125-0.165(0.0049-0.0065)
△E	MIN. AVE. THICKNESS OF INSULATION	mm (mils)	0.38 (15)
△E	MIN. THICKNESS AT ANY POINT OF INSULATION	mm (mils)	0.34 (13.5)
△E	MIN. AVE. THICKNESS OF JACKET	mm (mils)	0.76 (30)
△E	MIN. THICKNESS AT ANY POINT OF JACKET	mm (mils)	0.61 (24)
△E	OVERALL DIAMETER OF JACKET	mm (in)	5.84-6.73 (0.230-0.265)
	DIELECTRIC-STRENGTH TEST- IN THE AIR 20±5°C	-	1500V for 1 min.
	SPARK TEST	V/sec	3000/0.18 (For 50 Hz) 3000/0.15 (For 60 Hz)
△E	INSULATION RESISTANCE AT 15°C	-	>=0.76Gohm (2.5 Mohm 1000 ft)

TITLE : CABLE SPECIFICATION
UL/CSA APPROVED POWER SUPPLY CABLE
SVT 18/3 105°C

SPEC NO. :	APPROVED BY :	CHECKED BY :	DRAWN BY :	REVISION :
CS-015UL			QIAN SM	F
	DATE : 05/07/07	DATE : 05/07/07	DATE : 05/07/07	PAGE : 1/1

REV.	DESCRIPTION	DATE
	ADD IN NEW CABLE MARKING.	
B	ADD IN 'UL/CSA' ON THE TITLE.	04/07/07
C	REMOVE OLD MARKING AS SHOWN.	27/11/08

CABLE MARKING

BAO HING (SHENZHEN)

△C

:- (UL) SVT E159216 VW-1 300V 105°C 3X18AWG BAOHING CSA SVT LL112007 VW-1 300V 105°C 3X0.824mm²(18AWG) LF

DRAWN	HONGYAN	27/11/08	FILE NAME : CABLE MARKING/ BAO HING/SVT/ SVT 18X3 105 -LF-BH(SZ)
CHECK		27/11/08	
APPR		28/11/08	
SCALE	N.T.S.	REV.	C

TITLE : CABLE MARKING (UL/CSA)

REFERENCE :

SVT 18/3 105°C LF

2. PLUG

REV	DESCRIPTION	DATE
BF	ADD IN CATALOGUE NO. CSUS15S3.	07/09/16
BG	ADD IN CATALOGUE NO. DGUSJ515HS3.	29/03/17

2.1. SCOPE

The specification applies to plug in compliance with UL498, UL817 and CSA C22.2 No.21-95. Except for the plug molded with SJT-R or SVT-R cable shall be in according to UL498 & UL817.

2.2. CONSTRUCTION

The plug construction shall comply with our catalogue No: ME301,ME301R,ME301P, ME301RP,ME301S,ME302,ME302P,ME302GR,ME302GRP,PS204,PS204A,PS204D, PS204GR,PS206,MP204,VS205A,VS205S,VS207A,VS208A,US15B,US15BP,US115PSC, US115SC,US115LS,US115LPS,USJ15B,US115S,USI515A,US515SC,PS520,PS620, PS206A,926,926SR,US650A, US515A , US115VPS2, US15S3, US15S2, MA115VPS2, 926BSR, 926NPSR, US515BTA3, 953, USJ15TS3, US15GPS2, US115DPS2, VPUS15S3, PL-3001,VPUS15DS3, PS520A, CX-394S, VPUS15S2, USD15GPS2, USD115PS2, APUS15S3, DS15PS2, APUS15S2, DS15FPS2, DS15EPS2, DS15JPS2 , US520A3 DS15FBPS2 ,MFUS15S2, HO515S3,DLUS15S3, VNUS15S2, LSUS15THA3, USL515PS3, VNUS15S3, VNUS15FS3, CSUS15S3 & *DGUSJ515HS3.*

2.3. CHARACTERISTICS

NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
1.	Conductor secureness test	A force of 20lbf (89N) is applied on the connection between the blade and conductor for 1 min.	The connection shall not break.
2.	Strain relief test (May be exempted with abrupt pull test)	A pull of 30lbf (133N) is applied between the cord and fitting for 1 min.	There shall not be any damage to the cord and fitting. For hospital grade plug, the cord shall not been displaced by more than 0.8mm.
3.	Insulation resistance test	A D.C 500V is applied to the following; i) between live parts of opposite polarity for Class I & Class II plugs. ii) between live parts and grounded parts for Class I plug only. iii) between live parts and exposed surfaces for Class I & Class II plugs.	Min. 100 M Ohm
4.	Temperature rise test	A rated current is passed through the cord for 4 hours.	The rise in temperature of the blades shall not exceed 30°C.
5.	Dielectric voltage withstand test	An alternating voltage of 1250V is applied between each conductors for 1 min.	There shall be no arching, breakdown or flashover
6.	Accelerated aging test	The sample is placed in an oven at a temperature of 100±1°C for 96 hours.	There shall be no damage.
7	Crushing test	After ageing for 7 days at 90±1°C, a pressure of 75lbf (334N) (500lbf for hospital grade) shall be applied on the fitting for 1 min.	The shall be no damage and expose of live parts.

DRAWN:	WANGHUI	29/03/17	TITLE : NORTH-AMERICAN PLUG
CHECK:	hongyan	29/03/17	
APPR:	heith	29/03/17	
REV:	BG		
REFERENCE:			

NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
8	Flexing test (applicable only to parallel cord)	The sample is secured on an oscillating member with a weight of 284g(HPN cord) or 113g(others) and moved backward and forward through an angle of 180° (90° on each vertical side) for 2500 cycles. Rate of cycle is 10/min. and each cycle is from the left to the right and back again.	The conductors on each core shall not have been completely broken.
9	Abrupt pull test	i) Cords with grounding conductor. The plug is inserted into a receptacle with grounding pin on the up position. The angle is 45°. The blades are secured with set screws. A weight of 2.5lb (1.1Kg) is impacted by pulling on the cord for 25 times dropped at height of 10 inches (254mm).A current of 40A at 6-12V is then applied to the grounding conductor for 2 mins. ii) Cords with two conductors. Similar to item (i) but with only 5 impacts and the height is 7 inches (178mm).	No open circuit of any conductors.
10	Abrupt removal test (Hospital grade only)	The preparation is similar to item (9i) but the angle is at 90° and the blades are not secured. A 10lb (4.5Kg) weight is dropped from a height of 24 inches (610mm).	The plug shall be completely removed from the receptacle.
11	Jacket retention test	i) Similar to item (9i) but with only 10 impacts. ii) Similar to item (12) but the 15lbf(67N) is applied at 8 inches from the cord entrance. A weight of 3 lb(1.33kg) is then suspended 8 inches from the cord entrance for 15s. It is then rotated 360° in 15s.	No fillers, separators, insulation or bare conductors shall be seen on the cord entrance area.
12	Security of insulation test (Applicable to parallel cord only)	Insulation on each conductor is slitted open at approx. 25mm from it's entry. All strands of conductor are to be severed. A pull of 15lbf (67N) is applied for 2 min between all blades and free end of the cord.	There shall not be any detachment of insulation from the plug or baring of conductors.
13	Blade pull test at elevated temp.	The sample is conditioned at 60°C. A 10lbf (44.5N) pull is applied to the blades in succession for 4 hours at 60°C. The weight is then removed and the sample is allowed to cool to room temperature.	The blades must not been displaced by more than 1.6mm.
14	Security of blades test	A force of 20lbf (89N) is applied for 2 min. at each blade in succession.	After the removal of the weight, the blades shall not be displaced by more than 2.4mm.

DRAWN:	WANGHUI	29/03/17	TITLE : NORTH-AMERICAN PLUG
CHECK:	hongyan	29/03/17	
APPR:	heith	29/03/17	
REV:	BG		

NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
15	Impact Resistance Test	After ageing for 7 days at 90±1°C, the fitting is allowed to cool to room temperature. The fitting with a cable length of about 45 in (1143 mm) is to be mounedt on a vertical wall with the plug hanging freely along a striking block. The plug is lifted vertically up but about 36 in (965 mm) away from the wall. The plug is than let go and be allowed to strike the block. This is to be repeated 1000 times.	There shall be no damage to the fitting.
16	Rotary Pull (applicable only to hospital grade)	The plug is moulded with the flexible cord without the conductors terminated to the blades or grounding pin. The cord is than subjected to a vertical force of 10lbf (44.5N) and rotated at a rated of 9rpm in a 3 in diameter circle at a point 6 in (152mm) below the cord exit for 2 hours.	The conductors shall not have been displaced by more than 0.8mm.
17	Adhesion test (applicable only to outdoor-use)	Adhesion between the cord and the body of the fitting shall be determined by bending the cord to an angle of 90° with the plane of the cord entry.	The area shall be examined visually for openings that would likely permit the entry of moisture into the body. If the visual examination cannot verify that acceptable adhesion exists, the plug may be cut apart for examination. The adhesion may be determined to be acceptable if the examination of the inner construction reveals a positive seal at all points around the periphery of the cord.
18	Weather (sunlight) resistance test (applicable only to outdoor-use)	If the plastic material is not tested for weather resistance, then the plugs/connectors/assemblies shall be subjected to conditioning according to CSA C22.2 No. 2556 or CSA C22.2 0.17 for 720 hrs (carbon arc) or 1000 hrs (Xenon-arc), and then subjected to crushing and impact resistance test.	After crushing test, there shall be no damage and expose of live parts. After impact resistance test, there shall be no damage to the fitting.

DRAWN:	WANGHUI	29/03/17	TITLE : NORTH-AMERICAN PLUG
CHECK:	hongyan	29/03/17	
APPR:	heith	29/03/17	
REV:	BG		
REFERENCE:			

3. CONNECTOR

REV	DESCRIPTION	DATE
BB	ADD IN CATALOGUE NO.DGC13S, DGC13A & DGC19S.	29/03/17
BC	ADD IN CATALOGUE NO. VAC5AL.	20/06/17

3.1. SCOPE

The specification applies to connector in compliance with UL817, CSA C22.2 No. 21-95 and C22.2 No. 182.3-M1987.

The connector shall generally complies to IEC 60320-1 with the exception of catalogue no. PS309/P & MS212A.

3.2. CONSTRUCTION

The connector construction shall comply with our catalogue No: VAC5S, VAC5AR, 25AC5, APC5A, APC5M, APC5S, APC5SM, APC5SP, APC7S, APC7Q, APC7M, VAC7S, SZC7S, APC13, APC13S, VSCC13, AVLC13, VAC7A, VAC7PS, VIC13A, M1625, V1625,V1625LA, V1625A, V1625BA, V1625BS, VAC15S, VAC15BS, VAC17S, VAC17BS, PIC17BS, PIC17S, VAC19, VAC19A, VSC19, DLC5A3, DLC5SA3, PS625, PS625A, MS225, PS309, PS309P, MS212, MS212A, APC13F, APC13G, DLC7U2, AP7M16, 386A, VAC17A, VAC13KS, DLC5U3, VCC13, VAC19KS, DLC7E2, DLC5E3, HPC13A,V1625AT, CN-4001, SOC7S, APC5SF, VCC5S, VCC7S, APC7H, APC13H, V1625H, VAC19H, APC7K, APC13FH, APC13HC, MFC7S, VAC15A, 386AL, VAC17KS, APC7HB, VAC13CS, VAC13AD, VAC13AU, DLC5CS3, VNC7S, VNC13S, VNC5S , VNC13A, VNC7A, VNC5FS, DGC13S, DGC13A, DGC19S & *VAC5AL.*

3.3. CHARACTERISTICS

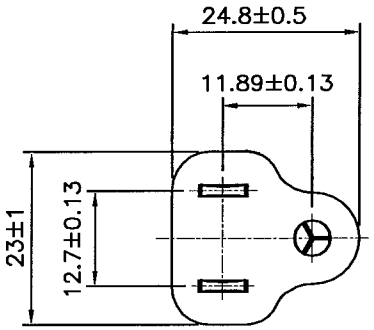
NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
1.	Conductor secureness test	A force of 20lbf (89N) is applied on the connection between the contact and conductor for 1 min.	The connection shall not break.
2.	Strain relief test	A pull of 30lbf (133N) is applied between the cord and fitting for 1 min.	There shall not be any damage to the cord and fitting.
3.	Insulation resistance test	A D.C 500V is applied between conductors and between current carrying parts and body.	Min. 100 M Ohm
4.	Temperature rise test	A rated current is passed through the cord for 4 hours.	The rise in temperature of the contacts shall not exceed 30°C.
5.	Dielectric voltage withstand test	An alternating voltage of 1250V is applied between each conductors for 1 min.	There shall be no arching breakdown or flashover
6.	Accelerated aging test	The sample is placed in an oven at a temperature of 100±1°C for 96 hours.	There shall be no damage.
7.	Flexing test (applicable only to parallel cord)	The sample is secured on an oscillating member with a weight of 284g(HPN cord) or 113g(others) and moved backward and forward through an angle of 180° (90° on each vertical side) for 2500 cycles. Rate of cycle is 10/min. and each cycle is from the left to the right and back again.	The conductors on each core shall not have been completely broken.

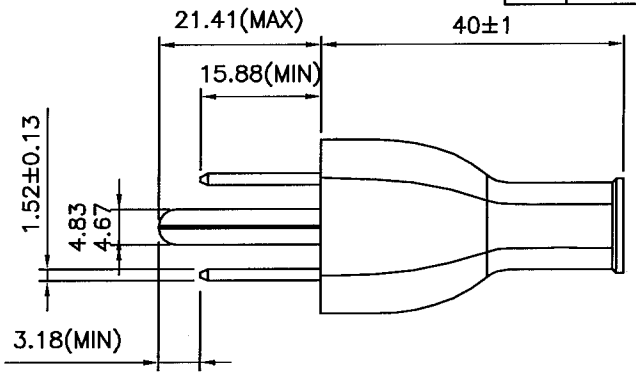
DRAWN:	JIN JU	20/06/17	TITLE : NORTH-AMERICAN CONNECTOR
CHECK:	Feng	20/06/17	
APPR:	keith	20/06/17	
REV:	BC		
REFERENCE:			

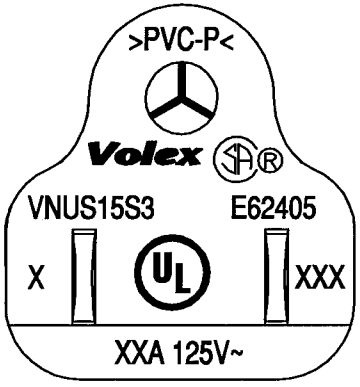
NO.	TEST ITEM	DESCRIPTION	ACCEPTANCE CRITERIA
8.	Jacket retention test	Insulation on each conductor is slitted open at approx. 25mm from cord entry.All strands of conductor are to be severed.A pull of 15lbf (67N) is applied for 2 min. between fitting and free end of cord.	There shall not be any detachment of insulation from the connector.

DRAWN:	JIN JU	20/06/17	TITLE : NORTH-AMERICAN CONNECTOR
CHECK:	Feng	20/06/17	
APPR:	keith	20/06/17	
REV:	BC		
REFERENCE:			

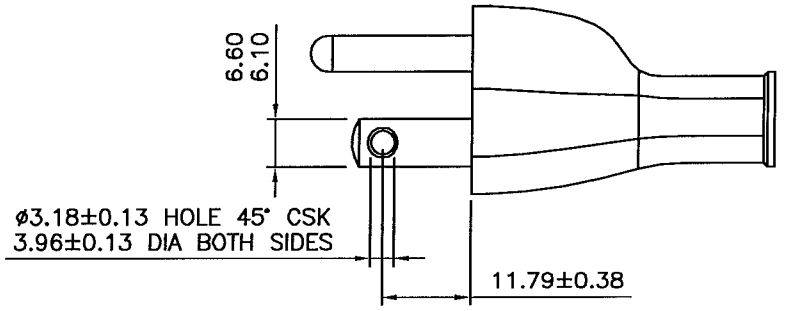
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE.	22/04/15
B	ADD IN CURRENT OF '2.5A'.	23/09/15







MARKING DETAILS



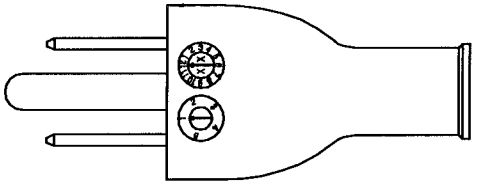


TABLE :

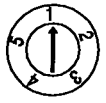
CURRENT (XXA)	10A	✓	2.5A	

B

NOTES :

1) ALL DIMENSIONS IN mm.
2) X – CAVITY NO. (OPTIONAL)
3) XXX – MANUFACTURING LOCATION.
4) XXA 125V~ – RATING. (REFER TO TABLE)
5) VENDOR'S TRADEMARK MUST BE ON THE BLADE.
6) YEAR & MONTH & WEEK CODE INSERT :

YEAR X X
2015 = 1 5
2016 = 1 6



1 ~ 5 – week of the month

SM	HENG GANG (CHINA)	X
SM1/SMI	ZHONGSHAN (CHINA)	X
VH	HANOI (VIETNAM)	X
B	BATAM (INDONESIA)	X
VC	CHENNAI (INDIA)	X

MANUFACTURE LOCATION MARK
(' X ' IS APPLICABLE ONLY)

DRAWN	LILY ZHOU	23/09/15	FILE NAME : A-PLUG/UL&CSA /GENERAL/VNUS15S3 -UL&CSA
CHECK	lily	23/09/15	
APPR	[illegible]	23/9/15	
REV.	B	SCALE	N.T.S.

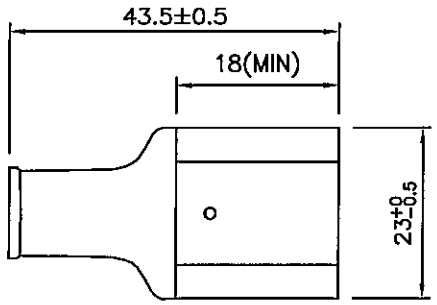
REFERENCE :

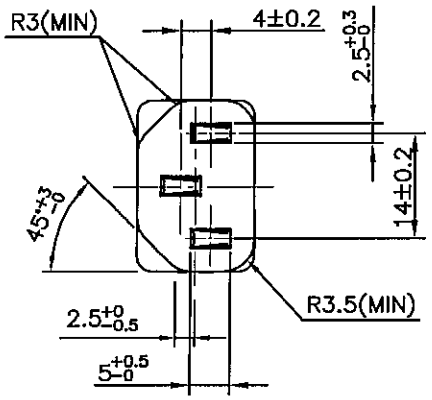
NORTH-AMERICAN APPROVAL

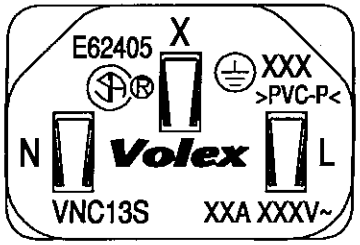
TITLE :

MOLDED PLUG
VNUS15S3

REV.	DESCRIPTION	DATE
A	INITIAL RELEASE.	22/04/15
B	ADD IN RATING '12A & 13A & 250V' AS SHOWN.	27/06/15







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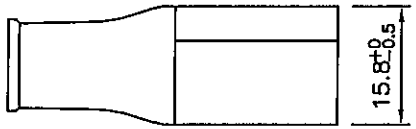

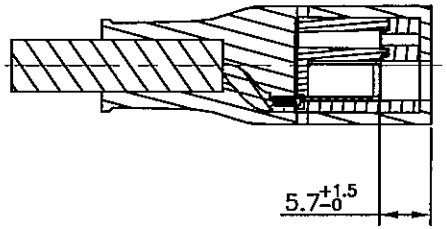

TABLE :

B	CURRENT (XXA)	10A	✓	12A		13A	
	VOLTAGE (XXXV~)	125V~	✓	250V~			

NOTES :

1.) ALL DIMENSIONS IN mm.
2.) X – CAVITY NO. (OPTIONAL)
3.) XXA XXXV~ – RATING. (REFER TO TABLE)
4.) XXX – MANUFACTURING LOCATION.

SM	HENG GANG (CHINA)	X
SM1/SMI	ZHONGSHAN (CHINA)	X
VH	HANOI (VIETNAM)	X
B	BATAM (INDONESIA)	X
VC	CHENNAI (INDIA)	X

MANUFACTURE LOCATION MARK
(' X ' IS APPLICABLE ONLY)

DRAWN	TIAN SHUO	27/06/15	FILE NAME : A-CONNECTOR/ UL&CSA/GENERAL /VNC13S-UL-CSA
CHECK	Tianshuo	27/6/15	
APPR	Feng	27/6/15	
REV.	B	SCALE	N.T.S.

REFERENCE :

NORTH-AMERICAN APPROVAL

TITLE :

MOLDED CONNECTOR
VNC13S