












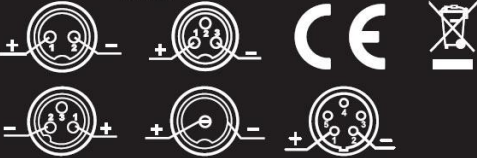
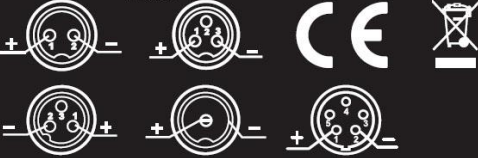
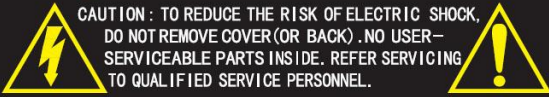
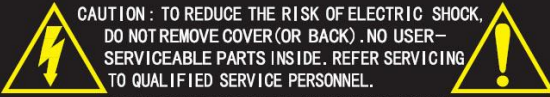


Prüfbericht-Nr.: <i>Test Report No.:</i>	16072518 002	Auftrags-Nr.: <i>Order No.:</i>	174051339	Seite 1 von 11 <i>Page 1 of 11</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	15.06.2016	
Auftraggeber: <i>Client:</i>	Wuxi Sans Electronic Co., Ltd. Industrial WuYi, DongGang Town, Wuxi, Jiangsu, P.R.China			
Prüfgegenstand: <i>Test item:</i>	Li-ion Battery Charger			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	SSLC084V42J, SSLC058V29J			
Auftrags-Inhalt: <i>Order content:</i>	Alternative components for GS mark			
Prüfgrundlage: <i>Test specification:</i>	EN 60335-1:2012+A11:2014 EN 60335-2-29:2004+A2:2010 EN 62233:2008 AfPS GS 2014:01			
Wareneingangsdatum: <i>Date of receipt:</i>	15.06.2016	Detaillierte Fotodokumentation siehe Anlage zu diesem Bericht Detailed photo documentation see appendix to this report		
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000379219-001			
Prüfzeitraum: <i>Testing period:</i>	15.06.2016 - 27.06.2016			
Ort der Prüfung: <i>Place of testing:</i>	See page 3			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong) Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
2016-6-29	Carpent Rao /Engineer	2016.06.29	Dono Zhou/Technical Certifier	
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>
				Unterschrift <i>Signature</i>
Sonstiges / Other: N/A				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Test item description	Li-ion Battery Charger
Trade Mark	
Model/Type reference.....	SSLC084V42J, SSLC058V29J
Ratings	AC input: 100-240V, 47-63Hz, 1.8A, DC output: 42V, 2A for SSLC084V42J AC input: 100-240V, 47-63Hz, 1.4A, DC output: 29.4V, 2A for SSLC058V29J

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBS that own these marks.

 SANS ELECTRONIC CO., LTD	 SANS ELECTRONIC CO., LTD
Li-ion Battery Charger MODEL : SSLC084V42J INPUT : AC100V-240V~1.8A MAX 47-63Hz OUTPUT : 42.0V --- 2.0A 	Li-ion Battery Charger MODEL : SSLC058V29J INPUT : AC100V-240V~1.4A MAX 47-63Hz OUTPUT : 29.4V --- 2.0A 
   	   
	
● CHARGING ● CHARGE-FULL OR DISCONNECT	● CHARGING ● CHARGE-FULL OR DISCONNECT
 <p>CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) . NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p> <p>BEFORE CHARGING READ THE INSTRUCTIONS! FOR INDOOR USE, OR DO NOT EXPOSE TO RAIN</p>	 <p>CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) . NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p> <p>BEFORE CHARGING READ THE INSTRUCTIONS! FOR INDOOR USE, OR DO NOT EXPOSE TO RAIN</p>
MADE IN CHINA Manufacturer: Wuxi Sans Electronic Co., Ltd. Address: Industrial WuYi, DongGang Town, Wuxi, Jiangsu, P. R. China	MADE IN CHINA Manufacturer: Wuxi Sans Electronic Co., Ltd. Address: Industrial WuYi, DongGang Town, Wuxi, Jiangsu, P. R. China

Remarks: ID 1419033385

Summary of testing:

1. The samples are tested and found to be complied with the requirements of standards listed on cover page
2. Tests of clause 22, 24, 29 have been carried out on model SSLC084V42J, Other tests could be covered by original report 16072518 001. Therefore, this report must be read in conjunction with the original report 16072518 001.
3. For EMF requirements, all required tests have been performed and passed. Please refer to test report 16072518 001.
4. The appliances were tested according European harmonized standards.

Testing location: TUV Rheinland (Guangdong) Ltd.

No.199 Kezhu Road, Guangzhou Science City 510663, Guangzhou, CHINA

Test item particulars

Classification of installation and use: Portable appliance and household indoor use

Supply Connection.....: Appliance inlet

.....:
.....:

Possible test case verdicts:

- test case does not apply to the test object.....: N/A

- test object does meet the requirement: P (Pass)

- test object does not meet the requirement: F (Fail)

Testing

Date of receipt of test item: See cover page

Date (s) of performance of tests: See cover page

General remarks:

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(See Enclosure #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

1. This report is based on report 16072518 001 for the following changes:

1.1 Changing package of D4 and PCB layout for the changing package of D4 for all models, see photo documentation for detail.

1.2 Adding magnetic bead on pin of D4 for all models, see photo documentation for detail.

1.3 Adding alternative certified X capacitor and Y capacitor for all models as below:

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
X-Capacitor CX1 (alternative)	Shenzhen Weidy Industrial Development Co., Ltd.	MKP	0.47uF, 310V, X2, 40/110/56/B	EN 60384-14	VDE
X-Capacitor CX2 (alternative)	Shenzhen Weidy Industrial Development Co., Ltd.	MKP	0.1uF, 310V, X2, 40/110/56/B	EN 60384-14	VDE
Y-Capacitor CY1, CY2, CY5	Anshan Kei Fat Electronic Ceramic Technical Co., Ltd.	CT7	4700pF, 400Vac, Y1, 25/125/21	EN 60384-14	VDE

2. Construction for all alternative components listed in table 24.1 was considered in this report.

3. The requirements of AfPS GS 2014:01 have been considered in this report. The risk analysis, categorization and evaluation indicate that the product complies to AfPS GS 2014:01. For PAHs requirements, see material list for PAH risk assessment in test report 16072518 001 for detail.

4. EN 60335-1:2012/AC:2014 is considered and passed.

5. All relevant EK-decisions have been considered.

6. Foreseeable use was considered. Currently neither a safeguard clause procedure has been invoked nor is an increase in accidents known for this/these product(s).

7. Factory:

Wuxi Sans Electronic Co., Ltd.

Industrial WuYi, DongGang Town, Wuxi, Jiangsu, P.R. China

General product information:

1. The appliance is class I appliance and for household use only.
2. The differences between the two models are listed as below table A.

Table A:

No.	Model	Input Voltage (V)	Rated frequency (Hz)	Input current (A)	Rated Output Voltage (V)	Rated Output Current (A)	Difference
1	SSLC084V42J	AC100-240V	47-63Hz	1.8A	DC42V	2A	Output circuit
2	SSLC058V29J	AC100-240V	47-63Hz	1.4A	DC29.4V	2A	

IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict
22	CONSTRUCTION		P
24	COMPONENTS		P
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		P

IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict

29.1	TABLE: Clearances					P
	Overvoltage category	II				—
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic (mm)	Supplementary (mm)	Reinforced (mm)	Functional (mm)	Verdict / Remark
330	0,2* / 0,5 / 0,8**	N/A	N/A	N/A	N/A	N/A
500	0,2* / 0,5 / 0,8**	N/A	N/A	N/A	N/A	N/A
800	0,2* / 0,5 / 0,8**	N/A	N/A	N/A	N/A	N/A
1 500	0,5 / 0,8** / 1,0***	N/A	N/A	N/A	N/A	N/A
2 500	1,5 / 2,0***	4.2	3.6	N/A	2.6	P
4 000	3,0 / 3,5***	N/A	N/A	6.5	N/A	P
6 000	5,5 / 6,0***	N/A	N/A	N/A	N/A	N/A
8 000	8,0 / 8,5***	N/A	N/A	N/A	N/A	N/A
10 000	11,0 / 11,5***	N/A	N/A	N/A	N/A	N/A

Supplementary information:

*) For tracks on printed circuit boards if pollution degree 1 and 2

***) For pollution degree 3

****) If the construction is affected by wear, distortion, movement of the parts or during assembly

Basic 1):

Difference pin of Y capacitors(CY1), Cr=Cl=4.2mm

Functional 2):

L/N in front of current fuse, Cr=Cl=2.6mm

Supplementary 3):

Difference pin of Y capacitors (CY2), Cr=Cl=3.6mm

Reinforce 4):

Primary winding to secondary winding (min), Cr=Cl=7.0mm

Primary circuit to secondary circuit (min), Cr=Cl=8.1mm

Primary circuit to accessible enclosure (min), Cr=Cl=6.5mm

IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	Creepage distance (mm) Pollution degree							Type of insulation			Verdict
	1	2			3			B**	S**	R**	
	Material group			Material group							
	I	II	IIIa/IIIb	I	II	IIIa/IIIb*					
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4		—	—	N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	—		—	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	4,8	—	—		N/A
250	0,56	1,25	1,8	2,5	3,2	3,6	4,0	4,2	—	—	N/A
250	0,56	1,25	1,8	2,5	3,2	3,6	4,0	—	3,6	—	N/A
250	1,12	2,5	3,6	5,0	6,4	7,2	8,0	—	—	6,5	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—		N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		—	—	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—		—	N/A
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0		—	—	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—		—	N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—		N/A

IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	Creepage distance (mm) Pollution degree							Type of insulation			Verdict
	1	2			3			B**	S**	R**	
	Material group			Material group							
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	B**	S**	R**	Verdict
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		—	—	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—		—	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—		N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		—	—	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—		—	N/A
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—		N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0		—	—	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—		—	N/A
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—		N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		—	—	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—		—	N/A
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—		N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0		—	—	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—		—	N/A
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—		N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0		—	—	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—		—	N/A
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—		N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0		—	—	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—		—	N/A
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—		N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0		—	—	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—		—	N/A
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—		N/A

IEC 60335-2-29											
Clause	Requirement + Test							Result - Remark			Verdict
29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	Creepage distance (mm) Pollution degree										
	1	2			3			Type of insulation			
	Material group				Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	B**	S**	R**	Verdict
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0		—	—	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—		—	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—		N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		—	—	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—		—	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—		N/A
Supplementary information:											
*) Material group IIIb is allowed if the working voltage does not exceed 50 V											
**) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation											
See table 29.1											

29.2	TABLE: Creepage distances, functional insulation										P
Working voltage (V)	Creepage distance (mm) Pollution degree										
	1	2			3						
	Material group				Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	Verdict / Remark			
≤10	0,08	0,4	0,4	0,4	1,0	1,0	1,0	N/A			
50	0,16	0,56	0,8	1,1	1,4	1,6	1,8	N/A			
125	0,25	0,71	1,0	1,4	1,8	2,0	2,2	N/A			
250	0,42	1,0	1,4	2,0¹⁾	2,5	2,8	3,2	P			
400	0,75	1,6	2,2	3,2	4,0	4,5	5,0	N/A			
500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A			
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N/A			
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N/A			

IEC 60335-2-29									
Clause	Requirement + Test							Result - Remark	Verdict
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N/A	
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N/A	
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N/A	
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N/A	
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N/A	
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N/A	
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N/A	
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N/A	
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N/A	
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N/A	
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	N/A	
Supplementary information:									
*) Material group IIIb is allowed if the working voltage does not exceed 50 V									
Remark: 1) L/N in front of current fuse:Cr=2.6mm.									

-- End of test report --