产 品 承 认 书

SPECIFICATION FOR APPROVAL

CUSTOMER/ 客 户 ：_____

CUSTOMER P.N./客户物料号：_____

MODEL NO./ 产 品 型 号 ： YDS-TC020-011

APPROVAL NO./ 承 认 编 号 ：_____

PREPARED DATE/ 拟 定 日 期 ： 2021-09-30

CUSTOMER AUTHORIZED SIGNATURE/客户承认签核		

Plea se return to us one copy of “SPECIFICATION FOR APPROVAL ”with you approved signature./ /客户确认签字，盖章后请回传一份承认书给我司.

研发部			品管部	
拟 制	审 核	批 准	审 核	批 准
丁利物	/	丁利物	赖宝才	袁旺平

E. C. LIST/变更履历表

Rev. 版本	Description of Change 变更内容描述	Changed Date/日期
1.0	Original Release	2018.12.15
1.2	MODEL 名为：YDS-TC020-011	2019.01.11

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1. 总述/Scope

资料详细描述了一款 18W(连续输出功率)开关电源的电气性,结构性及环境等要求.

The document details the electrical, mechanical and environmental specifications of a SMPS, the power supply provides 18W continuous output power.

描述/Description:

■ SMPS Charger(Wall mount)/插墙式充电器 □ Car Charger/车充

□ SMPS Adaptor(Wall mount)/ 插墙式适配器 □ Open Frame/开放式结构

□ Others/其他

2. 输入电性/Input Parameters

2.1 输入电压(Input voltage):

额定值范围(Nominal Range): 100-240VAC
浮动值范围(Input voltage Range)：100-240VAC

2.2 输入频率(Frequency):

额定频率(Nominal Frequency)： 47-63Hz

2.3 输入电流(Input current)：

在输入交流电压为额定电压, 额定负载时，最大输入交流电流为 0.5A。
0.5Arms Max. At nominal input voltage and nominal output current.

2.4 浪涌电流(Inrush Current)：
当输出为额定负载,环境温度为 25℃,输入 220Vac 冷态起机时无损坏.
When the output of the rated load, the ambient temperature is 25℃, input from 220Vac cold machine without damage to.

3. 输出电性/Output Parameters

3.1 输出电压/电流参数(Output Voltage/Output Current)：

3.1.1 额定输出电压/电流(Nominal Output Voltage/Current):
5V3A 9V2A 12V1.66A

3.1.2 浮动输出电压范围(Output Voltage Range):
4.75~5.25VDC 8.55~9.45VDC ... 11.4~12.6VDC

3.2 负载特性/Combined Load

Rated Output 额定输出	最小电压 Min.Value	最大电压 Max.Value	额定输出功率 Rated Output power	负载调整率 Load Regulation

+5Vdc 3A	4.75V	5.25V	15W	±8%
+9Vdc 2A	8.55V	9.45V	18W	±5%
+12Vdc 1.5A	11.4V	12.6V	20W	±5%

3.3 空载特性 /No Load Combined

空载电压 No load Voltage	最小电压 Min.Value	最大电压 Max.Value	最大待机功耗 Standby power consumption (Max)
4.75-5.25V	4.75V	5.25V	0.3W(Max)
8.55-9.45V	8.55V	9.45V	
11.4-12.6V	11.4V	12.6V	

3.4 纹波及噪音(Ripple&Noise)：

在额定输入电压，额定负载及室温条件下，使用 20MHz 带宽并并联一个 10uF 的电解电容和一个 0.1uF 的瓷片电容测试.

Under nominal input, nominal load and 25℃ operating temperature, the ripple and noise are measured with Max. Bandwidth of 20MHz and Paralleled 10uF/0.1uF at testing point.

额定输出 Rated Output	最大纹波/噪音 Ripple&noise (Max)
5V3A 9V2A 12V1.66A	250mVp-p

3.5 效率(Efficiency)：

在输入 220VAC 时，平均效率最小 71.2%.满足能效 5 级

At 220VAC input, average Efficiency 71.2% Min. Meet the energy efficiency level 5.

3.6 上升时间(Rise Time)：

在输入 220VAC 和输出额定负载时最大上升时间为 30mS.

30mS Max. at 220VAC input and nominal output current.

3.7 保持时间(Hold up Time)：

在输入 220VAC 和输出额定负载时,最小保持时间为 4mS.

4mS Min. at 220VAC input and nominal output current.

3.8 过冲(Overshoot)：

在 220VAC 输入，电源开启时，最大 15%. 15% Max. at 220VAC input and turn on.

3.9 启动延迟时间(Turn on Delay Time)：

在输入 220VAC 和输出额定负载时,最大启动时间为 3S

3Second Max. at 220VAC input and nominal output current.

4. 保护功能/ Protection Function

4.1 短路电路保护(Short Circuit Protection)：

当输出短路时,产品输入功率降低且不会损伤,当短路情况解除后,产品将会自动恢复正常

The input power shall decrease when the output is short to GND, the power supply shall not damage, and shall be self-recovery when the fault condition is removed

4.2 过流保护(Over Current Protection)：

Rated Output 额定输出	5V 3A	9V 2A	12V 1.66A
OCP Point Limited 过流保护点	3.0A--3.6A	2.0A--3.0A	1.8A—2.5A

当电压 9V/12V 时，过流点达到 3.0A,电压会降至 5V 以下将进入保护状态.5V 过流点达

到, 2.41A～3.5A 输出电压会降至 3V 以下视为保护状态。

When the voltage is 9V/12V, OCP to achieve3.0A Voltage drops below 5V will Enter a state of protection. 5V the over current point is reached the 2.41A～3.5A，

Output voltage will be reduced to below 3V as protection status.

过流故障排除后,电源将自动恢复正常工作.

The power supply will be auto recovered when over current faults remove.

5. 安全及 EMI 标准 / Safety and EMI Standard

5.1 安全(Safety):

PCBA 符合 K 60950 标准

PCBA Meet K 60950

5.2 耐压强度(高压)/ Dielectric Strength(Hi-pot):

初级对次级: 1500Vac / 10mA / 60 秒(QC 抽测高压测试时间: 60 秒;

产线实际生产：1500Vac/ 10mA / 3 秒)

Primary to Secondary: 1500Vac / 10mA / 60second(QC spot test time: 60 seconds;

1500Vac/ 10mA /3seconds for production)

5.3 EMI 标准(EMI STANDARD):

5.4 雷击（Surge）:

差模 1KV（火线—零线）

Differential Mode 1KV. Class Ⅱ (line to neutral)

6. 结构参数/Mechanical Parameters

6.1 外壳（Enclosure）：WHITE(白色)

外壳尺寸：L42×W42.5×H27mm（供参考）

Enclosure Dimension : L40×W25×H50mm (For Reference)

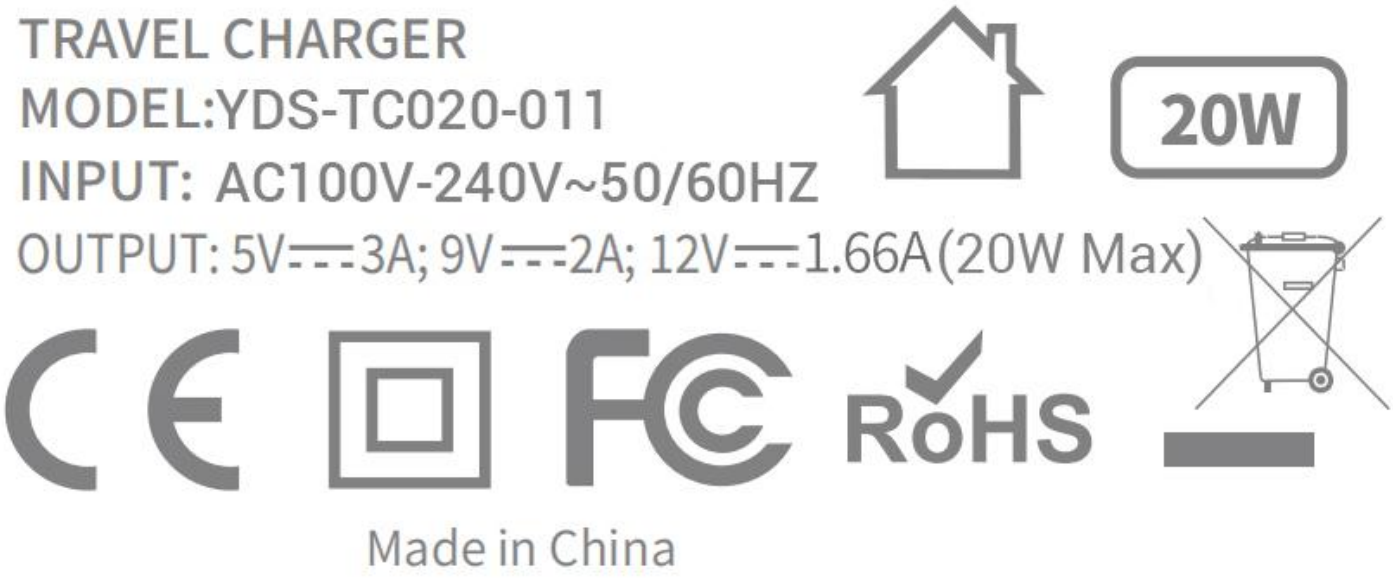
6.2 输入插脚(Input Connector)：

二 PIN US 插脚(铁质)

Two pins AC plug of US（iron）

7. 产品图片/ Product Picture

8. 铭牌/Label


TRAVEL CHARGER
MODEL:YDS-TC020-011
INPUT: AC100V-240V~50/60HZ
OUTPUT: 5V⎓3A; 9V⎓2A; 12V⎓1.66A(20W Max)
20W
RoHS
Made in China

9. 环境要求/Environment Requirements

9.1 工作温度(Operating Temperature)：

0℃-25℃，满载,正常工作 0℃-25℃, Full load, Normal operating.

9.2 储藏温度(Storage Temperature)：

-20℃ to 70℃带外壳 -----20℃ to 70℃ With Enclosure

9.3 工作湿度(Relative Humidity)：

-20%(0℃)－80%(25℃), 72 小时, 满载, 额定条件下工作.
-20%(0℃)－80%(25℃)RH, 72Hrs, Full load, Normal operating.

9.4 振动(Vibration)：

9.4.1 测试标准(Test Standard):

国际电工电子委员会 IEC 721- 3- 3 3M3
5－9Hz, Acceleration 1.5mm/S^2 9－200Hz, Acceleration 5M/S^2

9.4.2 运输(Transportation):

国际电工电子委员会
IEC 721- 3- 2 2M2
5－9Hz, Acceleration 3.5mm/S^2
9－200Hz, Acceleration 5M/S^2
200－500Hz, Acceleration 15M/S^2

9.4.3 轴向振动(Axes,10 cycles per axis)

在测试过程中不能出现永久性的损坏.
No permanent damage may occur during testing.
产品在开关机实验后能够回复到初始状态.
The product can be to restore to its original situation after power on/off.

10. 样品测试报告/Samples Test Report

Sample Test Report														
Test Item （测试项目）	Test Condition （测试条件）	Test Spec.	快充 SAMPLE NO.											
			1#						2#					
			5V3A		9V 2A		12V 1.66A		5V3A		9V 2A		12V1.66A	
			0A	3A	0A	2A	0A	1.5A	0A	3A	0A	2A	0A	1.5A
Output Voltage (输出电压 V)	220V 60Hz	4.75-5.65 8.55-9.45 11.4-12.6	5.06	5.02	9.05	9.06	12.01	12.02	5.05	5.03	9.01	9.03	12.01	11.96
Ripple&Noise （纹波&噪音mV）	220V 60Hz	250mV Max.	240mV		200mV		198mV		243mV		205mV		203mV	
OCP（A）	220V 60Hz	3. 7A Max.	3.4A		2.4A		2.0A		3.5A		2.35A		2.1A	
Standby Power Consumption （空载功耗W）	220V 60Hz	0.3W Max.	0.064W						0.065W					
Short Test （短路测试）	220V/Load	60sec	ok						ok					
Hi-pot Test （高压测试）	1Kv/60s/10mA	Pass/Fail	Pass						Pass					

Temperature Test Report				
Test Model：QC2.0		Test Condition：220Vac 60Hz ambient temperature：25° C		
NO.	Location	test result（° C）		SPEC.（° C）
		5V 3A	9V 2A	12V 1.66A
1#	U1,IC	103.4	118	92.8	130
2#	D3,schokkty	103.2	110.4	93.9	130
3#	T1,transformer winding	92.2	105.3	101.5	110
4#	Case	52.51	66.6	68.2	75
Result： PASS FAIL				

11. 可靠性/RELIABILITY

11.1 低温存储/Low temperature storage

充电器在-20±3℃ 环境温度下存储 8 小时，在常温下恢复后，测试输出参数符合要求，整机无损坏

Put travel charger at ambient temperature of -20±3℃ for 8 hours, No damage, The output parameter is in conformity with the requirement

11.2 低温工作/Low temperature working

充电器在-0℃ 环境温度下工作 8 小时，测试输出参数符合要求，整机无损坏

keep travel charger operating at ambient temperature of -0℃ for 8 hours, No damage, The output parameter is in conformity with the requirement

11.3 高温存储/High temperature storage

充电器在 70±3℃ 环境温度下存储 8 小时，在常温下恢复后，测试输出参数符合要求，整机无损坏

Put travel charger at ambient temperature of 70±3℃ for 8 hours, No damage, The output parameter is in conformity with the requirement

11.4 高温工作/High temperature working

充电器在 25℃ 环境温度下工作 8 小时，测试输出参数符合要求，整机无损坏

keep travel charger operating at ambient temperature of 25℃ for 8 hours, No damage,The output parameter is in conformity with the requirement

11.5 湿热循环/Damp heat cyclic

充电器在 60±2℃，相对湿度 90%至 95%的环境下存储 60 小时，测试输出参数符合要求，整机无损坏

Put travel charger at ambient temperature 60℃±2℃ 90%RH-95%RH for 60 hours, No damage,The output parameter is in conformity with the requirement

11.6 Salt spray test/盐雾测试

■ 24 小时/24 Hours　　□ 48 小时/48 Hours

11.7 Drop Test 跌落测试（IEC60950 CLAUSE 4.2.6 标准）

产品从 100cm 高处向硬木表面自然落下 6 次(6 面，每面测试 1 次)，测试后不会有机械或电性能损坏

Products from 100 cm high to hardwood surface dropped six times (6 sides, each side once test), there will be no mechanical or electrical damage after the test

11.8 煲机老化/Burn-in

生产中的产品全部在 25℃环境下满载煲机老化 2 小时

The Charger shall be burned-in at least 2 hours at 25℃ under full load condition

11.9 绝缘阻抗/Insulation Resistance

在初级与次级间加 500Vdc 进行测试，绝缘阻抗最小 5MΩ

5MΩ min. @ primary to secondary add a 500Vdc test voltage

12. 安规证书/ Safety certificate

CE EMC certification /CE EMC 认证

AOC-Testing

Certificate of Compliance

Certificate Number: AOC210621101E

Applicant	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Manufacturer	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Factory	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Product	:	Travel Charger/GaN Charger
Trade Mark	:	YIDASHUN
Model(s)	:	YDS-TC135-022, YDS-TCZZZ-ABC (ZZZ means total output power from 1W to 135W, 001 to 135 refers to 1W to 135W, A means quantity of smart USB ports from 0 to 8, B means quantity of QC3.0 interfaces from 0 to 3, C means quantity of USB-C PD or PPS interfaces from 0 to 3) See ANNEX 1

The submitted products have been tested by us with the listed standards and found in compliance with the following European Directives:

The EMC Directive 2014/30/EU

EN 55032:2015+A11:2020; EN 55035: 2017+A11:2020;

EN 61000-3-2:2019; EN 61000-3-3:2013+A1:2019

The tests were performed in normal operation mode. The test results apply only to the particular sample tested and to the specific tests carried out. This certificate applies specifically to the sample investigated in our test certificate number only.

The CE markings as shown below can be affixed on the product after preparation of necessary technical documentation.

Other relevant Directives have to be observed.

CE

Manager

June 10, 2021

Shenzhen AOCE Electronic Technology Service Co., Ltd
Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
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CE LVD certification /CE LVD 认证

AOC-Testing

Certificate of Compliance

Certificate Number: AOC210621001S

Applicant	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 In Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Manufacturer	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	66F, B3 In Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Factory	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 In Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Product	:	Travel Charger/GaN Charger
Trade Mark	:	YIDASHUN
Model(s)	:	YDS-TC135-022, YDS-TCZZZ-ABC (ZZZ means total output power from 1W to 135W, 001 to 135 refers to 1W to 135W, A means quantity of smart USB ports from 0 to 8, B means quantity of QC3.0 interfaces from 0 to 3, C means quantity of USB-C PD or PPS interfaces from 0 to 3) See ANNEX 1
Parameters	:	Input: 100-240V~, 50/60Hz Output: USB-C*1: DC 5V/9V/12V/15V 3A, DC 20V 5.35A (Each) PPS*1: DC 3.3V-20V 5.35A (Each) (USB-C/PPS)*2: DC 5V/9V/12V/15V/20V 3A (Each) QC3.0*2: DC 4.5V 5A, DC 5V 4.5A, DC 3.6V-6V 3A, DC 6V-9V 2A, DC 9V-12V 1.5A (Each)

The submitted products have been tested by us with the listed standards and found in compliance with the following European Directives:

The LVD Directive 2014/35/EU

EN IEC 62368-1:2020+A11:2020

The tests were performed in normal operation mode. The test results apply only to the particular sample tested and to the specific tests carried out. This certificate applies specifically to the sample investigated in our test reference number only.The CE markings as shown below can be affixed on the product after preparation of necessary technical documentation.

Other relevant Directives have to be observed.

CE

Manager

June 10, 2021

Shenzhen AOCE Electronic Technology Service Co., Ltd
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FCC certification ／FCC 认证

AOC-Testing

SUPPLIER'S DECLARATION OF CONFORMITY

ATTESTATION

The Product has been tested and found in compliance with the requirement of 47 CFR of PART 15 limit for radiation and conduction emission.
Based on the following criteria and procedures, product complies with FCC rules conformity assessment.

Applicant	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Manufacturer	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Factory	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Product	:	Travel Charger/GaN Charger
Trade Mark	:	YIDASHUN
Model(s)	:	YDS-TC135-022, YDS-TCZZZ-ABC (ZZZ means total output power from 1W to 135W, 001 to 135 refers to 1W to 135W, A means quantity of smart USB ports from 0 to 8, B means quantity of QC3.0 interfaces from 0 to 3, C means quantity of USB-C PD or PPS interfaces from 0 to 3) See ANNEX 1
Procedure	:	ANSI C63.4:2014
Related Standards	:	FCC Part 15 Subpart B
Certificate Number	:	AOC210621102F

FC

Manager
June 10, 2021

The information of the certificate can be checked through www.aoc-cert.com. The FCC mark which is shown on the certificate can only be used under the conditions that the products complete with all of the relevant Procedure of SUPPLIER'S DECLARATION OF CONFORMITY.
The Manufacturer should be responsible for the internal production control so that the products complied with the essential requirements of the above mentioned Procedure. Certificate holder must notify all changes to the original certification laboratory of AOCE.

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ROHS certification / ROHS 认证

AOC-Testing

Certificate of Compliance

Certificate Number: AOC210621002R

Applicant	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Manufacturer	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Factory	:	Shenzhen Yidashun Technology Co., Ltd.
Address	:	6F, B3 in Jincheng Industrial Park, Huafan Road, Longhua District, Shenzhen, China
Product	:	Travel Charger/GaN Charger
Trade Mark	:	YIDASHUN
Model(s)	:	YDS-TC135-022, YDS-TCZZZ-ABC (ZZZ means total output power from 1W to 135W, 001 to 135 refers to 1W to 135W, A means quantity of smart USB ports from 0 to 8, B means quantity of QC3.0 interfaces from 0 to 3, C means quantity of USB-C PD or PPS interfaces from 0 to 3) See ANNEX 1

The submitted products have been tested by us with the listed standards and found in compliance with the following European Directives:

The RoHS Directive 2011/65/EU and its amendment directives 2015/863/EU

IEC 62321-3-1:2013; IEC 62321-5:2013; IEC 62321-4:2013+A1: 2017;
IEC 62321-6:2015; IEC 62321-7-1:2015; IEC 62321-7-2:2017; IEC 62321-8:2017

The tests were performed in normal operation mode. The test results apply only to the particular sample tested and to the specific tests carried out. This certificate applies specifically to the sample investigated in our test reference number only.The RoHS markings as shown below can be affixed on the product after preparation of necessary technical documentation.

Other relevant Directives have to be observed.

RoHS

Manager
June 10, 2021

Shenzhen AOCE Electronic Technology Service Co., Ltd
Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
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