



SPECIFICATION FOR APPROVAL

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KSA-65D-120500VU

AC/DC ADAPTOR

AC/DC ADAPTOR

KSA-65D-120500VU Manufacturer Part No.: KS240702

KTEC

Customer Name KTEC

Customer Part NO.

Project Modify List

Item	Content	Rev.	Date	Prepared By	Checked By
1	First REV.	A	2025-11-20	Wang	Li chunquan

Manufacturer

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APPROVED BY

CHECKED BY

TESTED BY

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1. INPUT REQUIREMENTS

1.1 Highlight & Features

- Simple design philosophy.
- Reliability level of 50K hours MTBF @ 25°C (rated input voltage and using the Telcordia SR-332 issue 3 method).
- DC output voltage must be Safe Extra Low Voltage (SELV) & Limited Power as defined by UL62368-1.
- Cooling: natural convection

1.2 General Description

This specification defines the performance characteristics for a class II adapter, single-phase 60.0 watts. Single output level power supply.

1.3 Chemical Substance Control Laws

PAHS 6P NP REACH ROHS NOP PROP65

1.4 Input Conditions

The supply shall operate over the voltage ranges as follows:

Rated input voltage	100-240Vac
Operating range	90-264Vac
Rated input frequency	50/60Hz +/- 3Hz
Rated input current	1.5A maximum
Power consumption(no-loading)	0.21W maximum
Primary current protection	An adequate internal fuse on the AC input line is provided.
Input Configuration	<u>2</u> Conductor

1.5 Ac inrush current

No damage shall be occurred and the input fuse shall not be blown up nominal input voltage full load 25°C cold start.

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2. OUTPUT REQUIREMENTS

2.1	Nominal DC output voltage	+12.0V
2.2	Minimum load current	0.0A
2.3	Rating load current	5A
2.4	Peak load current	/
2.5	Rating output power	60.0W
2.6	Line regulation	The line regulation is less than $\pm 2\%$ while measuring at rated load and $\pm 10\%$ of input voltage changing.
2.7	Load regulation	The load regulation for +12.0V is less than $\pm 5\%$, at measured output load from 10% to 100% rated load.
2.8	Ripple and noise	120mV nominal input AC voltage at 25°C
		Add 0.1uF/50V ceramic capacitor and 10uF/50V aluminum electrolytic capacitor across the output terminal. Measured with 20MHz Bandwidth Oscilloscope.
2.10	Average efficiency	88% minimum 115V/60Hz and 230V/50Hz, output current from 100%, 75%, 50%, 25%.
2.11	Turn on delay time	3000ms maximum at nominal input AC voltage and full load.
2.12	Rise time	The supply shall have a start-up rise time of less than 50ms to rise to within regulation limits for all DC outputs.
2.13	Hold up time	8ms minimum at nominal input 100Vac minimum voltage and full load.
2.14	Output over-shoot	Less than 10% of nominal voltage value.
2.15	LED indication function	/
2.16	Protection function	
	Over-voltage protection	The output voltage shall be clamped by internal protection.
	Short-circuit protection	The adapter shall not be damaged by short the DC output to Ground. The adapter shall resume normal operation when a short circuited fault condition is removed.
	Over current protection	The power supply will be protection when output power at 110-200% of all rated DC output.

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3. MECHANICAL

3.1 Enclosure and Layout

Plastic case	UL94V-0
Weight	/ g (Max.)
Dimensions	79x34x55mm
Color	Black

3.2 Input and Output Configuration

Input pin	US Pin
Output connector	DC plug type: 5.5*2.1*9.5mm (Fork and Groove)
Polarity	Center “+”
Cable	1.5M VW-1 80℃ 300V 1185 3.5Q 16AWG Black

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4. REGULATORY COMPLIANCE

4.1 EMC Specifications

The external power supply must meet all specification in this section. it is required that the external power supply work closely with the customer's equipment in order to get the best EMC solution.

4.1.1 Radiated and Conducted Emission

FCC part 15: Class B for radiated and conducted emissions.

EN55032, Class B for radiated and conducted emissions.

4.2 Immunity

4.2.1 Electrostatic Discharge Immunity

EN 55035, EN 61000-4-2

Air Discharge: $\pm 8\text{kv}$

Contact Discharge: $\pm 4\text{kv}$

Performance Criteria B

Electrostatic-discharge test by contact or air should be conducted with Static-discharge tester (energy storage capacitance of 150pF and discharge resistance of 330 Ω) 8kv air discharge, 4kv contact discharge.

4.2.2 Radiated Field Immunity

EN 55035, EN 61000-4-3

Frequency Range: 80-1000MHz, still need test singly 1800MHz, 2600MHz, 3500MHz, 5000MHz

Field Strength: 3V/m with 80% amplitude modulation of 1kHz Performance Criteria A

Radio-frequency electromagnetic field susceptibility test, RS 80-1000MHz, 3V/m, 80%AM(1KHz).

4.2.3 Conducted Field Immunity

EN 55035, EN 61000-4-6

Frequency Range: 0.15-80MHz(0,15 to 10 MHz , 3V ; 10 to 30 MHz , 3-1V ; 30 to 80 MHz , 1V)

Field Strength: 3A/m with 80% amplitude modulation of 1KHz

Performance Criteria A

4.2.4 Fast Transient Immunity

EN 55035, EN 61000-4-4

Power line: 1kv

Signal line: 0.5kV

Performance Criteria B

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4.2.5 Surge Immunity

EN 55035, EN 61000-4-5

Line to line: ±1kv

Line to earth: ±2kv

+ 90°/ -270°

Lighting surge voltage of differential and common modes shall be applies across AC input lines and across input and frame ground.

4.3 Safety Requirements and Certification

4.3.1 Regulatory Standard

The power supply shall comply with the following international regulatory standards:

for short	Country	Certified Status	Standard
UL	USA	Meet	UL62368-1
CUL	Canada	Meet	CSA C22.2 NO.62368-1

4.3.2 Additional Safety Requirements

- © Dielectric Withstand Voltage, Primary(input AC short)-to-Secondary(output DC short): 3000Vac, 5mA, 1minute.
- © Insulation Resistance, Input to output: 100MΩ (MIN.) at 500 VDC.
- © Reinforced insulation system, Primary-to-Ground and Primary-to-Secondary.
- © The leakage current shall not exceed 0.25mA.

5. ENVIRONMENTAL REQUIREMENTS

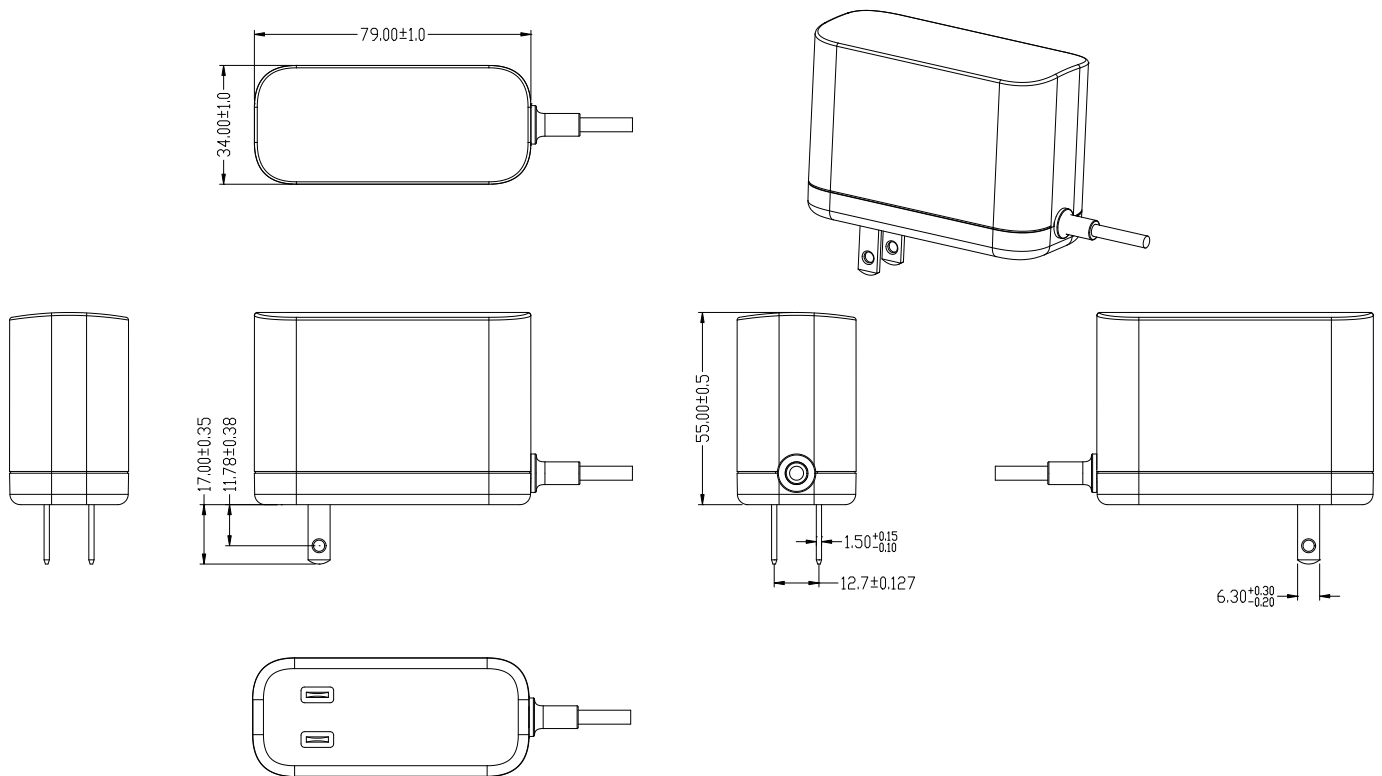
Temperature	Operating	0°C +40°C
	Non-Operating	-20°C +80°C
Humidity	Operating	10%~90% (Non Condensing)
	Non-Operating	10%~90% (Non Condensing)
Altitude	Sea level to 5000m	

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6. APPEARANCE DRAWING: (UNIT: MM)



NOTE:

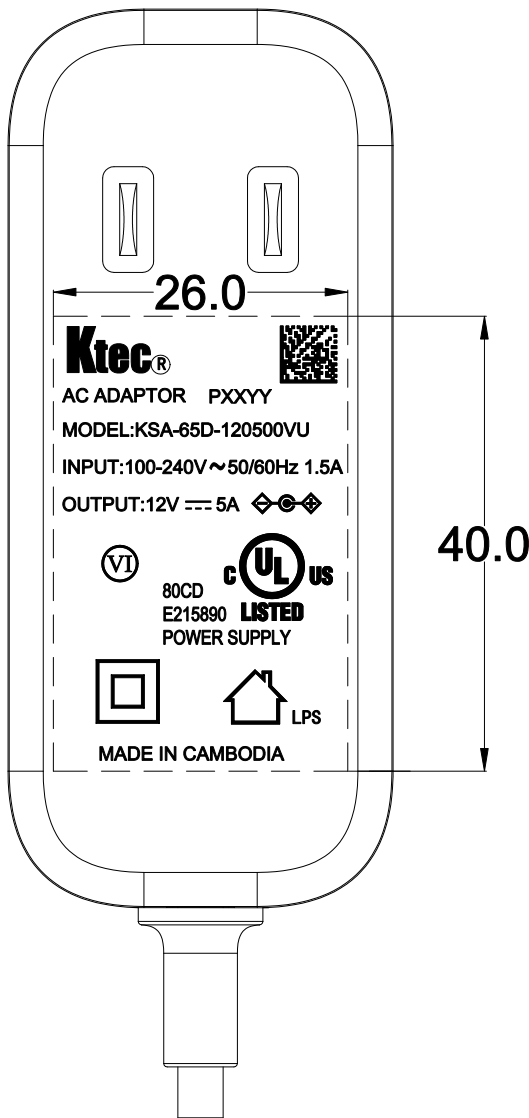
1. Case cover & chassis material: PC BLACK (NO KTEC)
2. AC PIN MATERIAL: BRASS (NI PLATED)
3. PAHS 6P NP REACH ROHS NOP PROP65
4. Satin Finish
5. Top mold: MSS024017; Bottom mold: MSS024018

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7. NAME PLATE



Note: Laser

PXXYY (P=PAHS, 6P, NP XX=Week, YY=Year), use the actual production date.

SN (Data Matrix Code size: 5*5mm):

First code G (Ktec) + Production part number (Product code) + Ten yards of flow code SSSSSSSSSS (decimal) Total 19 codes

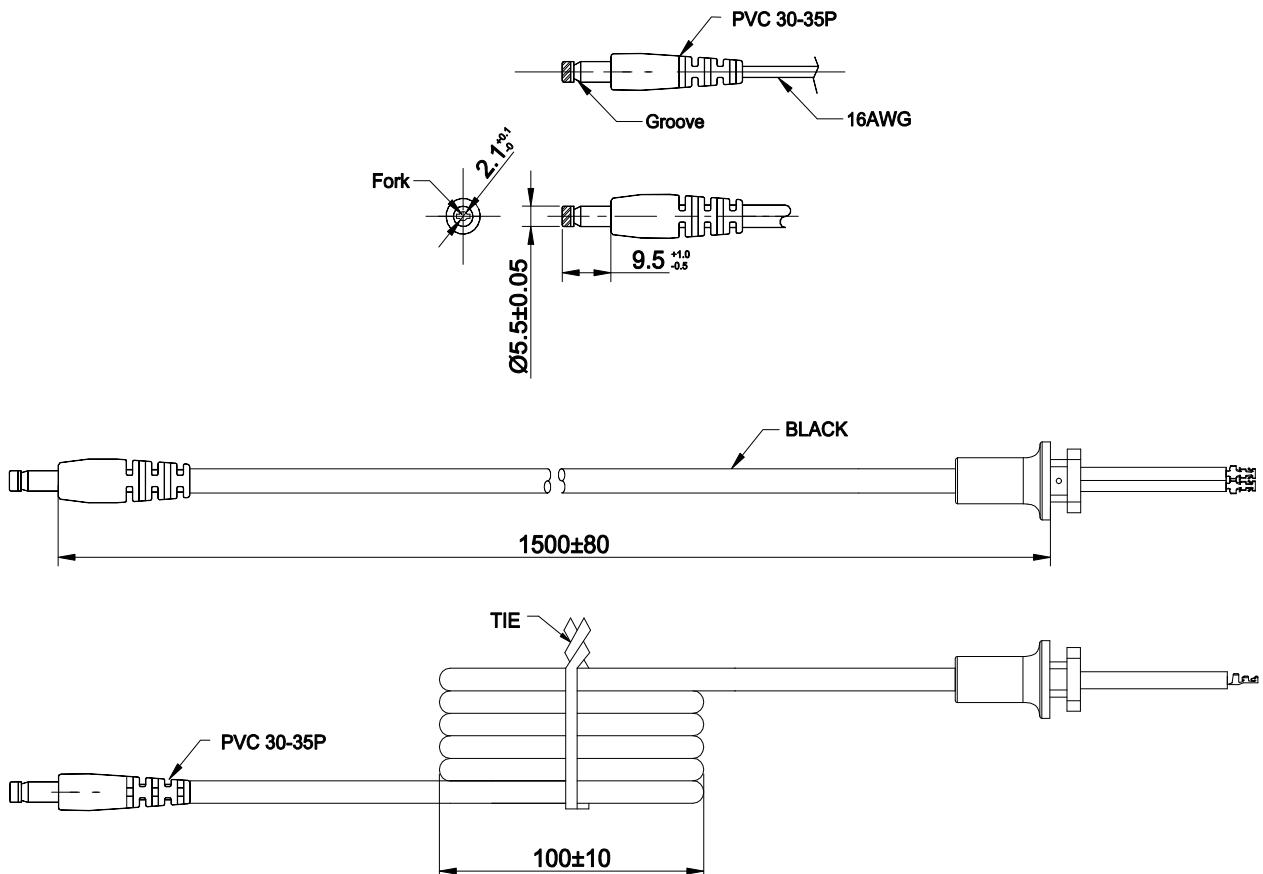
Example : GKS2407020000000001, GKS2407020000000002...GKS2407029999999999.

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8. DIMENSION OF OUTPUT PLUG & DC CORD (UNIT: MM)



NOTE: (unit:mm)

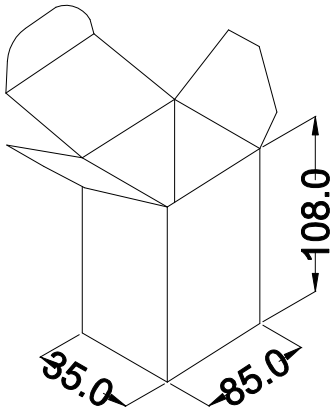
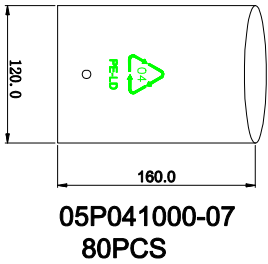
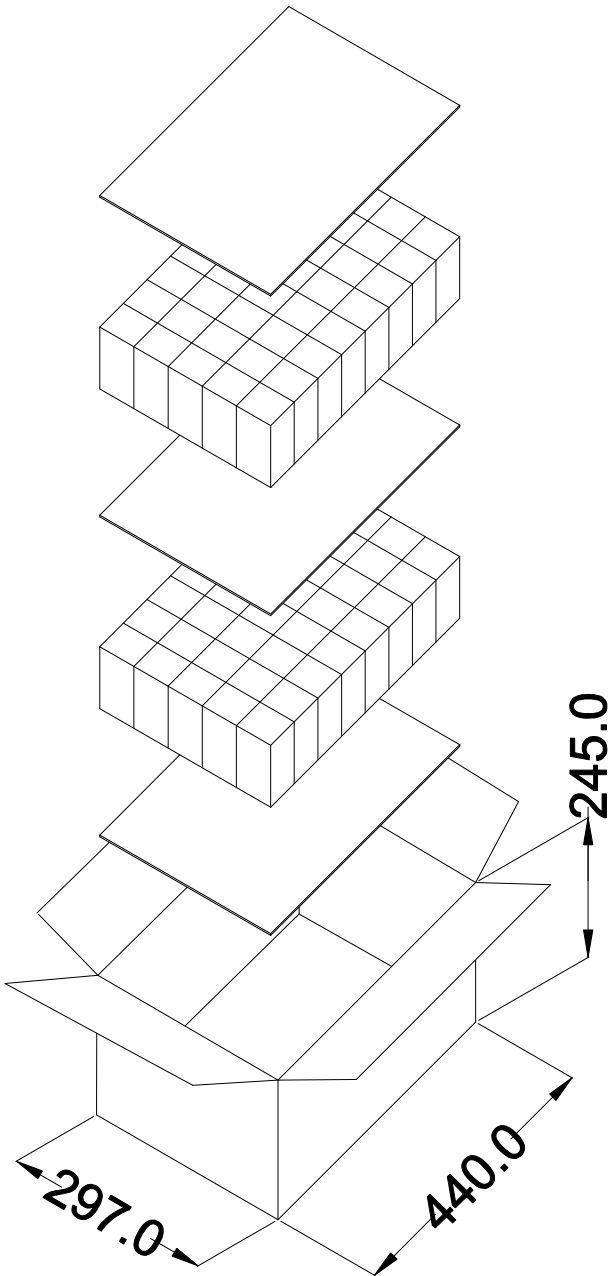
- 1).WIRE TYPE:VW-1 80°C 300V L=1500mm 1185 Ø3.5 16AWG BLACK
- 2).THE POLARITY:
- 3).PAHS 6P NP REACH ROHS NOP PROP65
- 4).SR MOLD: ML00516

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9. PACKING (UNIT: MM)



2025-01-02

Nick Cao
KUANTECH CO., LTD.
11th Fl 868-3 Zhongzheng Rd
Zhonghe District
New Taipei, 235, TW

Notice of Completion (NoC) and authorization to apply the UL Mark

Your reference:

Our reference: File E215890, Volume X9

Order: 15600738

Project: 4791587843

Project scope: UL/cUL Investigation of AC ADAPTOR: Model KSA-65D-XXXYYYVU ("XXX", "YYY" and "ZZ" are variables, XXX= 100 to 240, YYY= 000 to 600.)

Dear Nick Cao:

We appreciate that you have a choice of certification providers and thank you for choosing UL Solutions. We have completed the investigation under the above project and confirmed compliance of your product(s) with UL Mark requirements.

This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark at the factory location(s) identified on the Authorization Page of UL Solutions File E215890, Volume X9. You are required to send a copy of this letter to all manufacturing locations authorized under UL Solutions File E215890, Volume X9.

The Follow-Up Services Procedure covering your product(s) will typically be provided by UL Solutions within 10 business days. Any information and documentation provided to you involving the UL Mark services are provided on behalf of UL LLC or any authorized licensee. The UL Solutions certification directory is updated with active certifications shortly after projects are reviewed and completed. Please visit <https://productiq.ulprospector.com/> to search for the certification.

Products that bear the UL Mark must be identical to those submitted to UL for evaluation and certification and must comply with the Follow-Up Services Procedure covering your product(s). Additional requirements related to the responsibilities of the Applicant and Manufacturer can be found under **Customer Requirements documents** at www.ul.com/fus.

A UL Solutions certification is a valuable marketing tool meaning your product or company has successfully met stringent requirements. We encourage you to use your UL Mark and certification in your marketing activities. We are happy to provide guidance on how best to promote your UL certification. Our [Certification Achievement Kit](#) demonstrates marketing and promotional concepts to help you best represent your UL certification.

UL Solutions is committed to providing you with an exceptional customer experience. You may receive an email from ULSurvey@feedback.ul.com inviting you to provide feedback. Your survey rankings and comments regarding the experience are important to us. We are always seeking ways to improve in any areas we can, and your feedback and comments are vital to this process.

If you have any questions, please contact me or any of our customer service representatives at www.ul.com/contact-us.

Sincerely,

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Tony.Yeung@ul.com

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