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AMA65D-Y



Desktop Adaptor

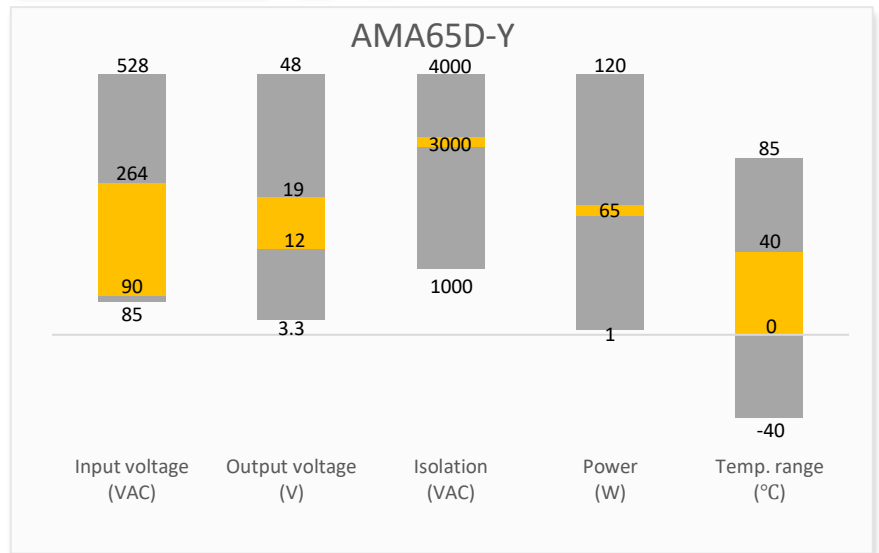
The AMA65D-Y is a small industrial grade desktop adapter offering a commercial input voltage range of 90-264VAC and an output power of 65W. This adapter will offer many benefits to powering your system such as low power consumption, high efficiency (complies with DoE level VI), meeting IEC62368-1, FCC, Class B, CISPR22, Class B.

It also features an isolation of 3000VAC for improved reliability and system safety and comes standard with output short circuit protection (OSCP) and output over-current protection (OCP).

Features

- Universal Input: 90 - 264VAC/47 - 63Hz
- Operating Temp: 0 °C to +40 °C
- High isolation voltage: 3000VAC
- Low ripple & noise, 300mV(p-p), max
- Output short circuit, over-current, over-voltage protection
- Regulated Output

Summary



Training



Product Training Video
(click to open)



Press Release

Coming Soon!

Application Notes

Applications



Portable Equipment



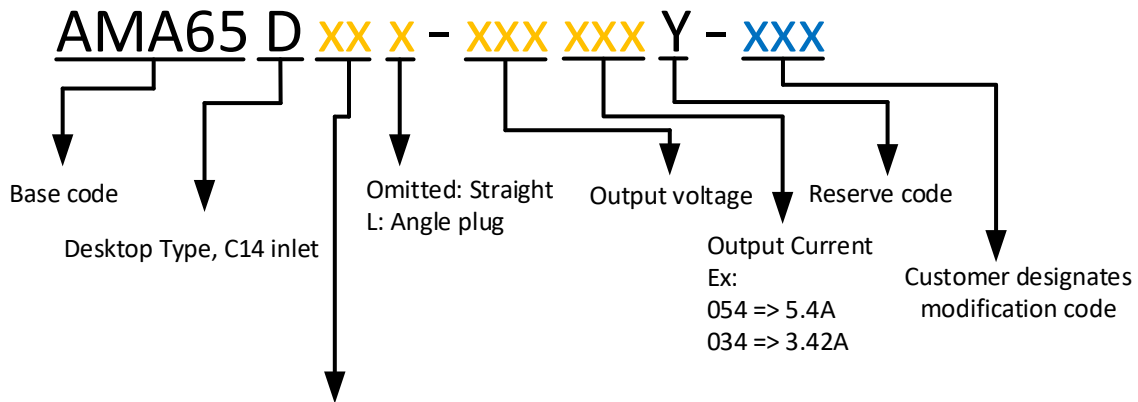
Industrial

Models & Specifications

General Feature

| Model | Input Voltage (VAC) | Output Voltage (VDC) | Output Current max (A) | Output Power max (W) | Efficiency (%) |
|----------------|---------------------|----------------------|------------------------|----------------------|----------------|
| AMA65D-120054Y | 90 - 264 | 12 | 5.4 | 65 | 88 |
| AMA65D-190034Y | 90 - 264 | 19 | 3.42 | 65 | 88 |

Please refer to below coding rule for completed part numbers. Eg. AMA65D**R5**-120054Y for industrial grade adaptor which comes with 5.5mm*2.5mm*9.5mm straight standard output plug.



| Plug type | Code | O. D. | I. D. | Length |
|--|------|---|-------|--------|
| Standard | R4 | 5.5mm | 2.1mm | 9.5mm |
| | R5 | 5.5mm | 2.5mm | 9.5mm |
| Locking | K1 | 5.5mm | 2.1mm | 9.5mm |
| | K2 | 5.5mm | 2.5mm | 9.5mm |
| USB | U2 | * USB type C (For 19V output models only) | | |
| * NOTE: The USB type C connector option is only a physical USB type-C connector which does not support PD and programmable power supply. | | | | |

Input Specification

| Parameters | Conditions | Minimum | Typical | Maximum | Units |
|-----------------|----------------------------------|---------|-----------|---------|-------|
| Voltage range | | 90 | 100 - 240 | 264 | VAC |
| Frequency | | 47 | 50 - 60 | 63 | Hz |
| Input current | Vin at 100 -240VAC, 12VDC output | | | 1.5 | A |
| | Vin at 100 -240VAC, 19VDC output | | | 1.8 | |
| Leakage current | 240VAC/50Hz | | | 0.25 | mA |

| Output Specification | | | | | |
|----------------------|--|---------|---------|---------|-------|
| Parameters | Conditions | Minimum | Typical | Maximum | Units |
| Output voltage | 12VDC output | | 12 | | VDC |
| | 19VDC output | | 19 | | |
| Output current | 12VDC output | 0 | | 5.4 | A |
| | 19VDC output | 0 | | 3.42 | |
| Voltage regulation | | | | ±5 | % |
| Line regulation | | | | ±1 | % |
| Load regulation | 50% - 100% Load | | | ±5 | % |
| Dynamic load | 50% to 100% step change, 100Hz & 1KHz 50%duty, Slew rate 0.5A uS | | | ±5 | % |
| Over shoot | | | | 10 | % |
| Ripple and Noise | 20 MHz bandwidth, 12VDC output | | | 200 | mVp-p |
| | 20 MHz bandwidth, 19VDC output | | | 300 | |
| Start-up time | Nominal input | | | 3 | S |
| Hold-up time | Vin at 115VAC | 8 | | | mS |
| Overshoot | | | | 10 | % |

Ripple and Noise are measured at 20MHz bandwidth by using a 0.1uF (M/C) and 10uF (E/C) parallel capacitor.

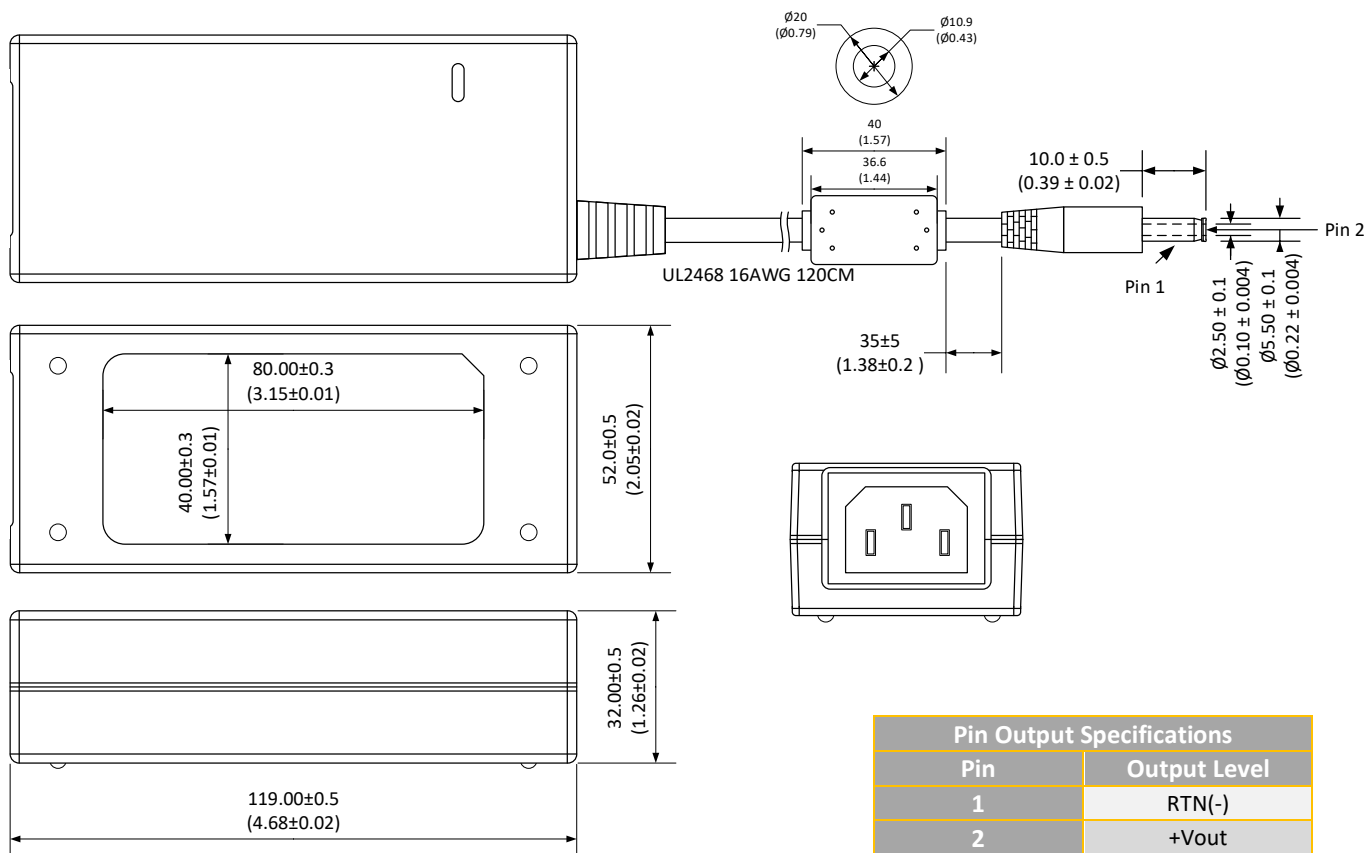
| Isolation Specifications | | | | |
|--------------------------|---|---------|-------|-------|
| Parameters | Conditions | Typical | Rated | Units |
| Tested I/O voltage | 60 sec, leakage current < 10mA, I/O, 12VDC output | | 3000 | VAC |
| | 3 sec, leakage current < 10mA, I/O, 19VDC output | | 3000 | |
| | 3 sec, leakage current < 10mA, I&O/PE, 19VDC output | | 1500 | |
| Insulation resistance | 500VDC | | 50 | Mohm |

| General Specification | | | | | |
|--------------------------|---|---------|---------|---------|-------|
| Parameters | Conditions | Minimum | Typical | Maximum | Units |
| Operating temperature | | 0 | | 40 | °C |
| Storage temperature | | -20 | | 85 | °C |
| Power consumption | Vin at 115 -230VAC, no load | | | 210 | mW |
| Humidity | Non-condensing | 10 | | 90 | % RH |
| Altitude | | 0 | | 2640 | m |
| DOE LEVEL | | VI | | | |
| Over voltage protection | 12VDC output | | | 18 | V |
| | 19VDC output | | | 27 | |
| Over current protection | Continuous, auto recovery | | | | |
| Short circuit protection | Continuous, auto recovery | | | | |
| Vibration | 1.0mm, 10 - 55Hz, 15minutes for each axis | | | | |
| Dimensions (L x W x H) | 4.70 x 2.07 x 1.28 inches (119.5 x 52.5 x 32.5mm) | | | | |
| Output cable length | 59.06 inches (1500mm) | | | | |

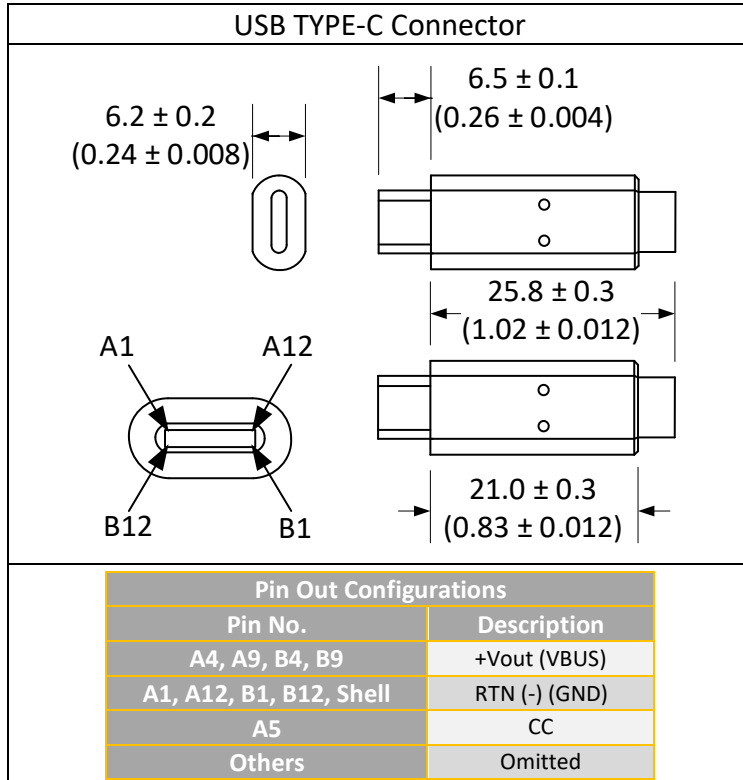
MTBF > 100 000 hrs (Bell Core SR332, t=+25°C)/Full Load
 All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

| Safety Specifications | | |
|-----------------------|--|--|
| Parameters | | |
| Agency approvals | cULus UL62368-1, CE EN62368-1 | |
| Standards | Designed to meet IEC62368-1 | |
| | EMC - Conducted and radiated emission | FCC, Class B CISPR32, Class B |
| | Electrostatic Discharge Immunity | IEC 61000-4-2 Level 2: Contact ±4KV Level 3: Air ±8KV |
| | RF, Electromagnetic Field Immunity | IEC 61000-4-3 Level 2: Field strength 3V/m |
| | Electrical Fast Transient/Burst Immunity | IEC 61000-4-4 Level 2: ±1KV |
| | Surge Immunity | IEC 61000-4-5 Level 3: L-L ±1KV, L-G & N-G ±2KV |
| | CS, Conducted Disturbance Immunity | IEC 61000-4-6 Level 2: 3V/M |
| | MF | IEC 61000-4-8 Level 1: Magnetic strength 1A/M(r.m.s) |
| | Voltage dips, Short Interruptions Immunity | IEC 61000-4-11 0% 250cycle, 70% 0.5cycle |

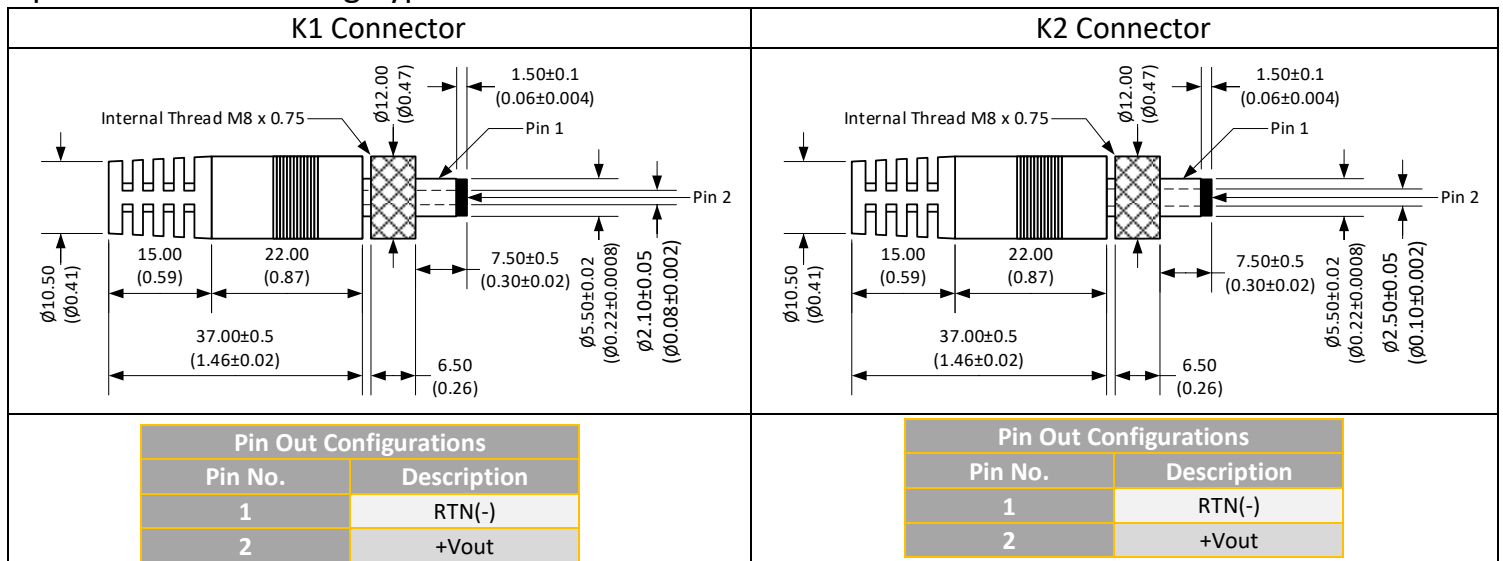
Dimensions



Optional USB Connector:



Optional Barrel Locking Type Connector:

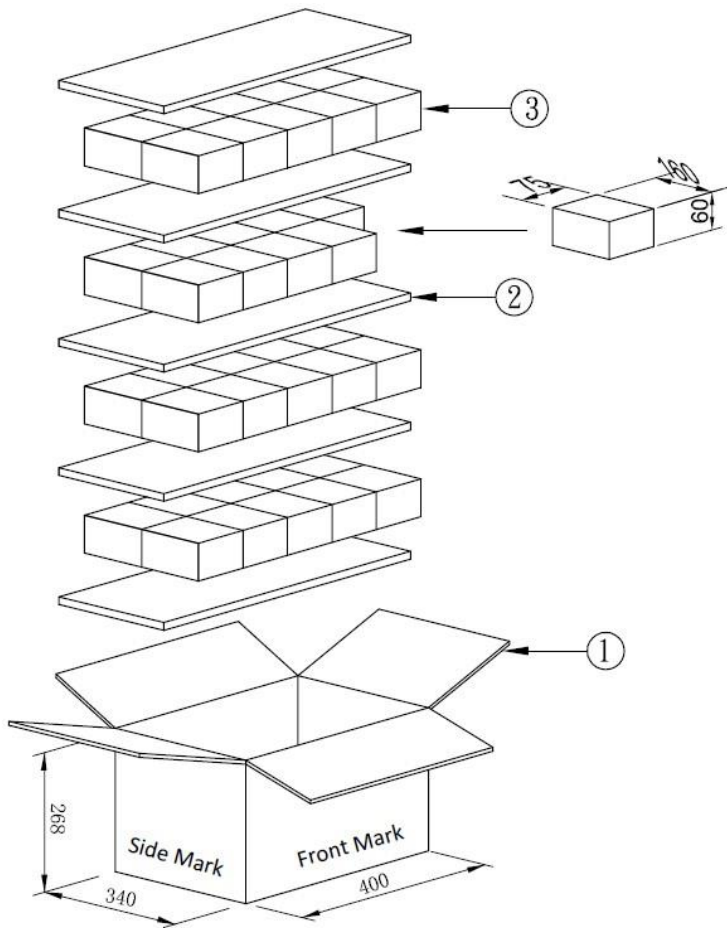


NOTE:

1. USB TYPE-C connector: Limited maximum output voltage of 20V, and maximum output current of 5A.

Packing

For US and European Plug:



Packing information:

- CARTON : L*W*H=(400*340*268) +/-5mm A=A
- CLAPBOARD : (375*320) +/-3mm B33 5PCS
- WHITE BOX : 160*75*60 C9
- Q'TY : 10*4=40PCS
- NET WEIGHT : (g)(ref)
- UNIT : mm

NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com. 8. Adaptors are intended for industrial use only.