

6W

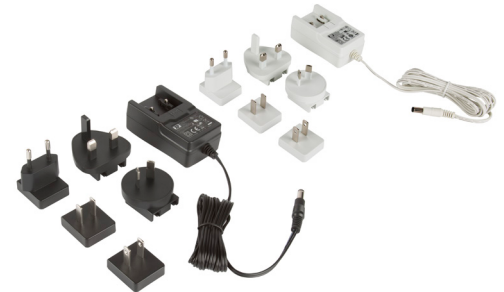
AC-DC  
power supplies 

The ACM06 series of wall plug adaptors comply with the latest energy efficiency level VI standards with high active mode efficiency and extremely low no load power consumption.

Available with a standard jack plug and USB (suffix -BB) connector these adaptors suit a wide variety of cost sensitive medical (2 x MOPP) and ITE & industrial electronics applications while maintaining industry leading performance. White case version (suffix -W) available.

The models listed are for the body only, the AC mains connectors are sold separately, black is standard, add a W suffix for white.

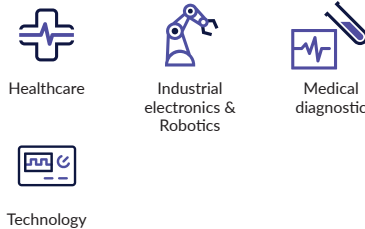
For UK mains connector, order: ACM PLUG UK  
For US mains connector, order: ACM PLUG US  
For EU mains connector, order: ACM PLUG EU  
For AU mains connector, order: ACM PLUG AU  
For CN mains connector, order: ACM PLUG CN



## Features

- ▶ Regulated single outputs 5V to 12VDC
- ▶ Energy efficiency level VI
- ▶ European CoC Tier 2
- ▶ Medical & ITE approvals
- ▶ Interchangeable mains connectors
- ▶ Optional white versions
- ▶ Class II construction
- ▶ 3 year warranty

## Applications



## Dimensions

**Body only:**

73.5 x 30.7 x 42.5mm (2.89" x 1.21" x 1.67")

## Documentation

For further information click the link or scan the code

→ [xppower.com](https://www.xppower.com)



## Models & ratings

| Model number <sup>(1)</sup> | Output voltage | Output current | Total regulation <sup>(3)</sup> | Efficiency <sup>(4)</sup> | Output power |
|-----------------------------|----------------|----------------|---------------------------------|---------------------------|--------------|
| ACM06US05                   | 5.0VDC         | 1000mA         | ±5%                             | 80%                       | 6W           |
| ACM06US09                   | 9.0VDC         | 600mA          |                                 | 79%                       |              |
| ACM06US12                   | 12.0VDC        | 500mA          |                                 | 82%                       |              |

### Notes:

1. Model number is for body only. AC input plugs must be ordered separately, see AC input plug section.
2. Other output voltages available, contact sales for details.
3. Total regulation includes initial set accuracy, line and load regulation.
4. Typical average value measured at 115VAC.
5. For white case version add suffix '-W' e.g. ACM06US12-W. MOQ applies, contact sales for details.
6. For 5V version with optional USB type A connector in case, add suffix -BB, e.g. ACM06US05-BB.

## Input

| Characteristic      | Minimum               | Typical | Maximum | Units | Notes & conditions       |
|---------------------|-----------------------|---------|---------|-------|--------------------------|
| Input voltage       | 90                    |         | 264     | VAC   |                          |
| Input frequency     | 47                    |         | 63      | Hz    |                          |
| Power factor        |                       |         |         |       | EN61000-3-2 class A      |
| Input current       |                       |         | 0.2     | A     | 100VAC                   |
| Inrush current      |                       |         | 70      | A     | 240VAC cold start, +25°C |
| No load input power |                       |         | 75      | mW    |                          |
| Input protection    | Internal fuse in line |         |         |       |                          |

## Output

| Characteristic           | Minimum                                                       | Typical | Maximum | Units       | Notes & conditions                                                                            |
|--------------------------|---------------------------------------------------------------|---------|---------|-------------|-----------------------------------------------------------------------------------------------|
| Output voltage           | 5                                                             |         | 12      | VDC         | See models & ratings                                                                          |
| Minimum load             | No minimum load required                                      |         |         |             |                                                                                               |
| Start up delay           |                                                               |         | 4       | s           |                                                                                               |
| Start up rise time       |                                                               | 30      |         | ms          |                                                                                               |
| Hold up time             | 10                                                            |         |         | ms          | Full load and 100VAC                                                                          |
| Total regulation         |                                                               |         | 5       | %           | See models & ratings                                                                          |
| Transient response       |                                                               |         | 4       | % deviation | For a 50% step load change at 0.15A/μs                                                        |
| Ripple & noise           |                                                               |         | 150     | mV pk-pk    | Measured with 20MHz Bandwidth and 10μF electrolytic in parallel with 0.1μF ceramic capacitor. |
| Temperature coefficient  |                                                               |         | 0.05    | %/°C        |                                                                                               |
| Short circuit protection | Continuous, trip and restart (hiccup mode) with auto recovery |         |         |             |                                                                                               |
| Overload protection      | 120                                                           |         | 210     | %           |                                                                                               |

## General

| Characteristic             | Minimum | Typical    | Maximum | Units  | Notes & conditions                                                                       |
|----------------------------|---------|------------|---------|--------|------------------------------------------------------------------------------------------|
| Efficiency                 |         | 80         |         | %      | Typical average of efficiencies measured at 25%, 50%, 75% and 100% load and 115VAC input |
| Energy efficiency          |         |            |         |        | Level VI                                                                                 |
| Isolation: input to output | 4000    |            |         | VAC    | 2 x MOPP, suitable for BF applications (not tested by safety agency)                     |
| Switching frequency        | 24      |            | 70      | kHz    | Variable                                                                                 |
| Leakage current            |         | 20         | 100     | μA     | At 264VAC, 60Hz, from output to ground                                                   |
| Mean time between failure  | 250     |            |         | khrs   | MIL-HDBK-217F, +25°C GB                                                                  |
| Weight                     |         | 100 (0.22) |         | g (lb) | Body only                                                                                |

## Environmental

| Characteristic        | Minimum                                                | Typical | Maximum | Units | Notes & conditions                                  |
|-----------------------|--------------------------------------------------------|---------|---------|-------|-----------------------------------------------------|
| Operating temperature | 0                                                      |         | +60     | °C    | Derate from 100% load at +40°C to 50% load at +60°C |
| Storage temperature   | -20                                                    |         | +85     | °C    |                                                     |
| Cooling               | Natural convection                                     |         |         |       |                                                     |
| Operating humidity    | 5                                                      |         | 90      | %     | RH, non-condensing                                  |
| Operating altitude    |                                                        |         | 5000    | m     |                                                     |
| Shock                 | 1m drop onto concrete on each of 6 axes, non operating |         |         |       |                                                     |
| Vibration             | 10                                                     |         | 300     | Hz    | 2g, 0.3 decades/min, 15 mins for each of 3 axes     |

## ECM: Emissions

| Phenomenon        | Standard    | Test Level | Notes & conditions |
|-------------------|-------------|------------|--------------------|
| Conducted         | EN55032     | Level B    |                    |
| Radiated          | EN55032     | Level B    |                    |
| Harmonic currents | EN61000-3-2 | Class A    |                    |
| Voltage flicker   | EN61000-3-3 |            |                    |

## EMC: Immunity

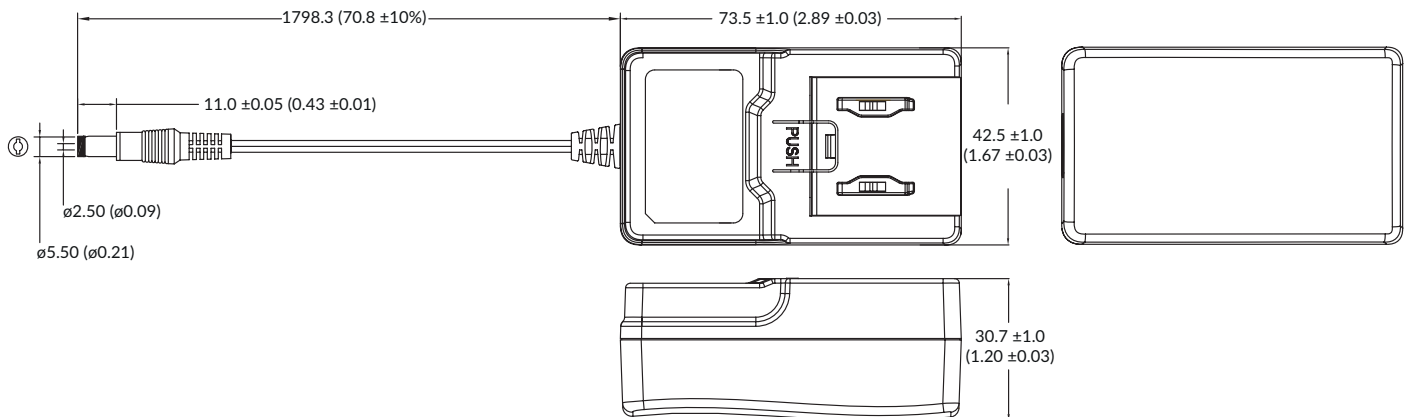
| Phenomenon             | Standard     | Test Level              | Criteria | Notes & conditions                    |
|------------------------|--------------|-------------------------|----------|---------------------------------------|
| Medical device emc     | IEC60601-1-2 | Ed.4.0 : 2014           | as below |                                       |
| Low voltage psu emc    | EN61204-3    | High severity level     | as below |                                       |
| Esd immunity           | EN61000-4-2  | ±15kV Air, ±8kV contact | A        |                                       |
| Radiated immunity      | EN61000-4-3  | 10V/m                   | A        |                                       |
| Eft/burst              | EN61000-4-4  | Level 3                 | A        |                                       |
| Surge                  | EN61000-4-5  | Installation Class 2    | A        |                                       |
| Conducted              | EN61000-4-6  | 6 V                     | A        |                                       |
| Magnetic field         | EN61000-4-8  | 30A/m                   | A        |                                       |
| Dips and interruptions | EN61000-4-11 | Dip: 100% 10ms          | B        |                                       |
|                        |              | Dip: 70% 500ms          | B        |                                       |
|                        |              | Int: 100% 5000ms        | B        |                                       |
|                        | EN60601-1-2  | Dip: 30% 25 AC Cycles   | A        |                                       |
|                        |              | Int: 100% 0.5 AC Cycle  |          | At 8 angles, A at 115VAC, B at 100VAC |
|                        |              | Int: 100% 1 AC Cycle    | B        |                                       |
|                        |              | Int: >95% 5000ms        | B        |                                       |

## Safety approvals

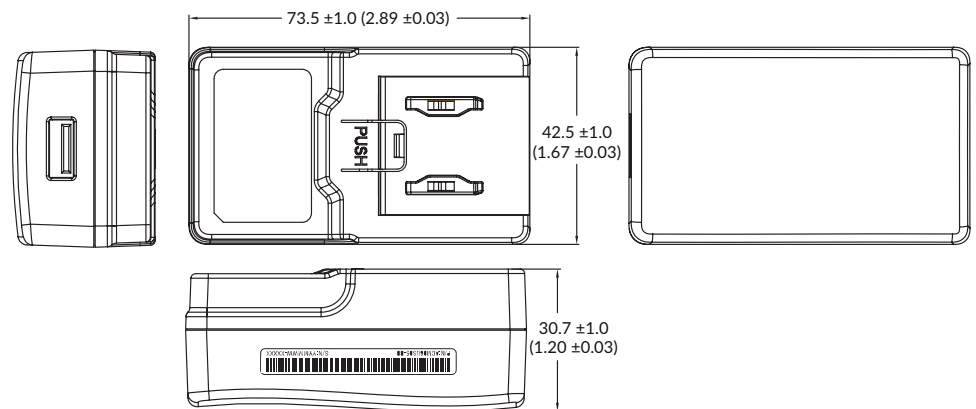
| Certification | Standard                               | Notes & conditions     |
|---------------|----------------------------------------|------------------------|
| UL            | UL60950-1, UL62368-1                   | Information Technology |
|               | ANSI/AAMI ES60601-1                    | Medical, 2 x MOPP      |
| EN            | EN60950-1, EN62368-1                   | Information Technology |
|               | EN60601-1                              | Medical, 2 x MOPP      |
| CB            | IEC60950-1, IEC62368-1                 | Information Technology |
|               | IEC60601-1                             | Medical, 2 x MOPP      |
| CSA           | CSA C22.2 No. 60601                    | Medical, 2 x MOPP      |
| CCC           | China Compulsory Certification, GB4943 |                        |
| AU/NZ         | AU/NZ 60950.1                          |                        |
| CE            | Meets all applicable directives        |                        |
| UKCA          | Meets all applicable legislation       |                        |

## Mechanical details

### ACM06USXX



### ACM06US05-BB



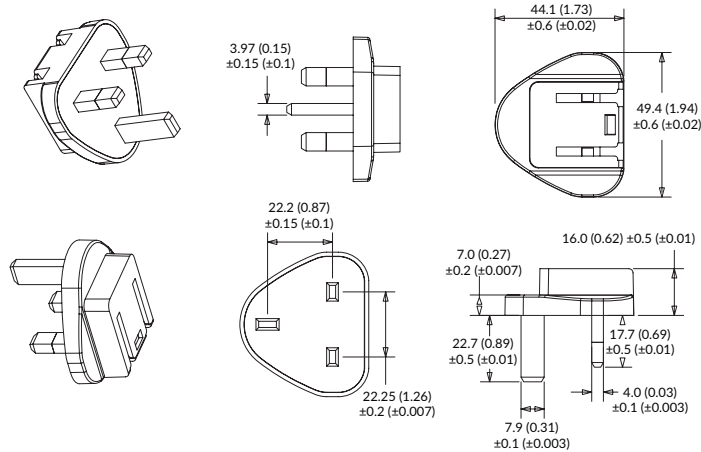
#### Notes:

Dimensions in mm (inches).  
ACM06USXX output plug  $\phi 5.5 \times \phi 2.5 \times 11.0$ mm, centre positive.  
ACM06USXX output lead: UL2468, 18 AWG.

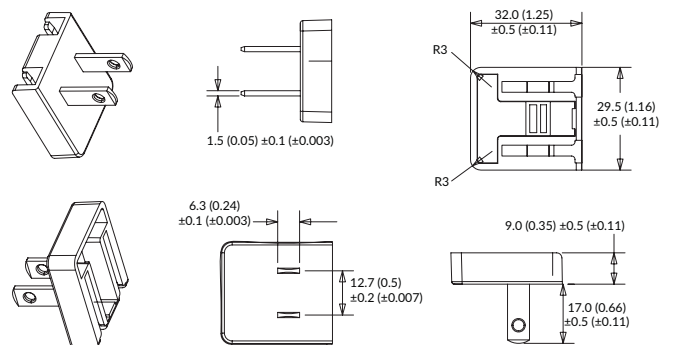
## Mechanical details

### AC input plugs

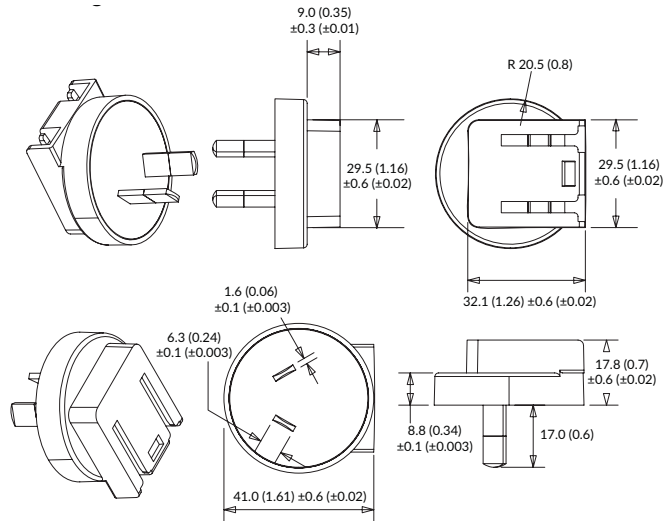
Black UK Plug: ACM PLUG UK  
White UK Plug: ACM PLUG UK W



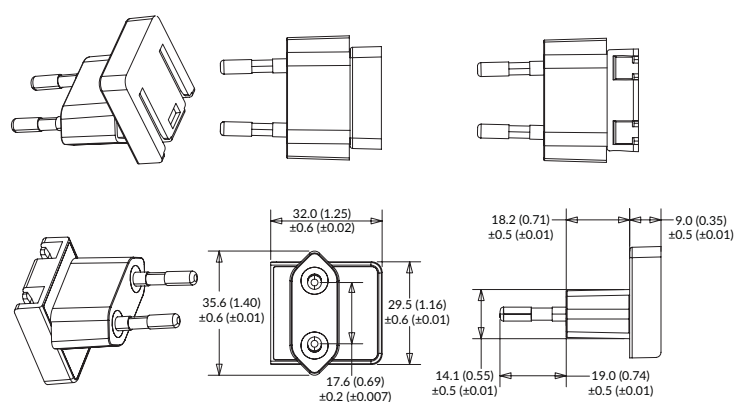
Black USA Plug: ACM PLUG US  
White USA Plug: ACM PLUG US W



Black Australian Plug: ACM PLUG AU  
White Australian Plug: ACM PLUG AU W



Black European Plug: ACM PLUG EU  
White European Plug: ACM PLUG EU W



Black China Plug: ACM PLUG CN  
White China Plug: ACM PLUG CN W

