

## 10W

AC-DC  
power supplies

The VEU10 range provides up to 10 Watts of output power in fixed input plug design, it has a type A USB in-body plug and is suitable for multiple charging applications or where a regulated 5VDC/2.1A power source is required.

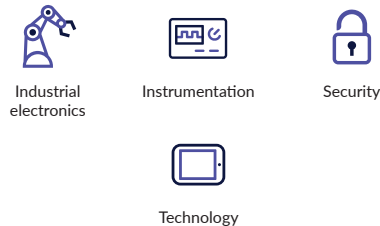
With class II construction, the range has three different versions of a fixed input plug for either the US, UK or Europe. All models are efficiency level VI and CoC Tier 2 compliant and have a no load input power of less than 75mW. Standard protection features include overvoltage, overcurrent and short circuit.



### Features

- ▶ 2.1A USB A power adaptor
- ▶ Output voltage 5.0VDC
- ▶ Energy efficiency level VI
- ▶ European CoC tier 2
- ▶ Fixed US, UK & European mains connectors
- ▶ Universal input
- ▶ Class II construction
- ▶ Limited power source (LPS) approved
- ▶ 1 year warranty

### Applications



### Dimensions

VEU (Case Only):

- US: 37.0 x 22.0 x 50.8mm (1.45" x 0.86" x 2.0")
- EU: 37.0 x 22.0 x 50.8mm (1.45" x 0.86" x 2.0")
- UK: 48.8 x 42.8 x 50.8mm (1.92" x 1.68" x 2.0")

### Models & ratings

Model number	Output voltage	Output current	Total regulation <sup>(2)</sup>	Output connector	Output power
VEU10US050-UK	5.0VDC	2100mA	5%	UK	10W
VEU10US050-US	5.0VDC	2100mA		US	
VEU10US050-EU	5.0VDC	2100mA		EU	

#### Notes:

1. Total regulation includes initial set accuracy, line and load regulation.

2. For white case version add suffix '-W' e.g. VEU10US050-US-W. MOQ applies, contact sales for details.

## 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			0.3	A	100VAC
Inrush current			60	A	240VAC cold start, +25°C
No load input power			<0.075	mW	
Input protection	Internal T1.0A/250VAC fuse				

## Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Output voltage		5		VDC	See models & ratings
Minimum load	No minimum load required				
Start up delay			4	s	
Start up rise time		30		ms	
Hold up time		11		ms	Full load and 115VAC
Total regulation			5	%	See models & ratings
Transient response			4	% deviation	Recovery within <1% within 500µs for a 50% step load change at 0.15A/µs
Ripple & noise			200	mV pk-pk	Measured with 20MHz bandwidth and 47µF 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				

## General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Energy efficiency	Level VI and CoC Tier 2				
Isolation		3000		VAC	Input to output
Switching frequency	24		70	kHz	Variable
Mean time between failure	100			khrs	MIL-HDBK-217F, 25°C GB
Weight		50 (0.11)		g (lb)	For -UK version

## 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	-40		+85	°C	
Cooling	Natural convection				
Operating humidity	5		95	%	RH, non-condensing
Shock	1m drop onto concrete on each of 6 axes				
Vibration	10		300	Hz	2g 15 mins/sweep, 60 mins for each of 3 axes

## EMC: 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

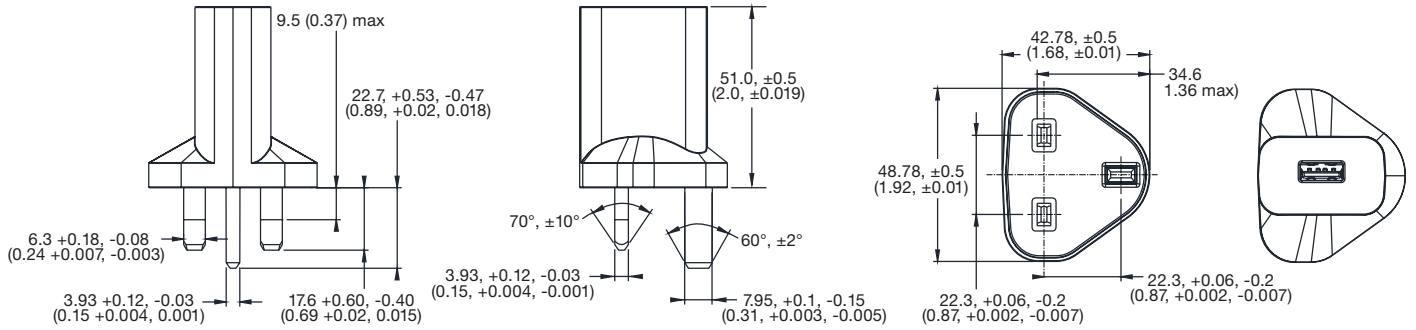
Phenomenon	Standard	Test level	Criteria	Notes & conditions
ESD immunity	EN61000-4-2	2,3	A	±4kV contact, ±8kV air
Radiated immunity	EN61000-4-3	3V/m	A	
EFT/burst	EN61000-4-4	Level 2	A	
Surge	EN61000-4-5	Level 2	A	
Conducted	EN61000-4-6	3V	A	
Magnetic field	EN61000-4-8	1A/m	A	
Dips and interruptions	EN55035 100% 10 ms, 30% 500 ms, 100% 5000 ms, Perf Criteria A, A, B			

## Safety approvals

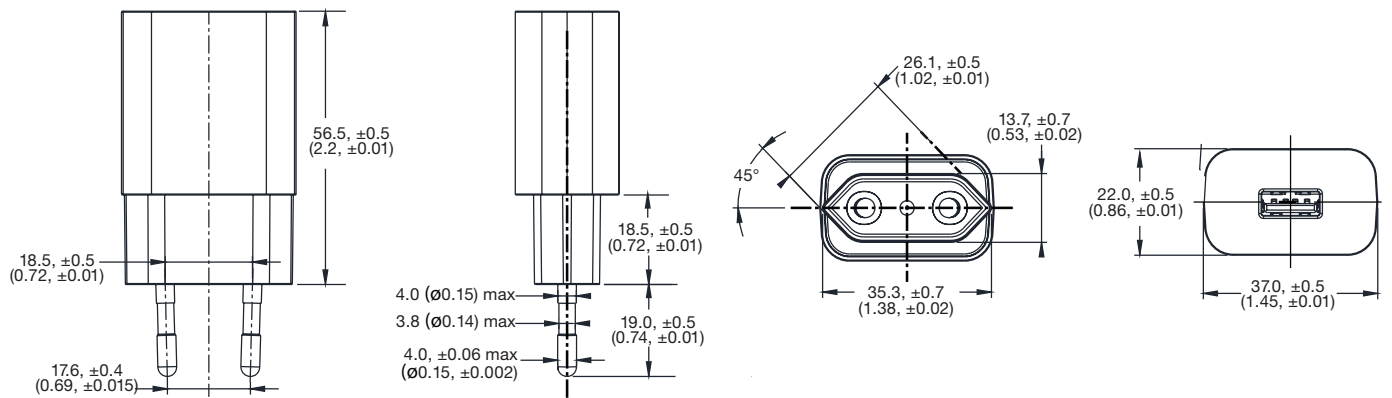
Certification	Standard	Notes & conditions
UL	UL/cUL62368-1, UL62368-1	Approved as limited power source (LPS)
EN	EN60950-1, EN62368-1	
CB	IEC60950-1, IEC62368-1	
CCC	China Compulsory Certification, GB4943	
AU/NZ	AU/NZ 60950.1	
CE	Meets all applicable directives	

## Mechanical details

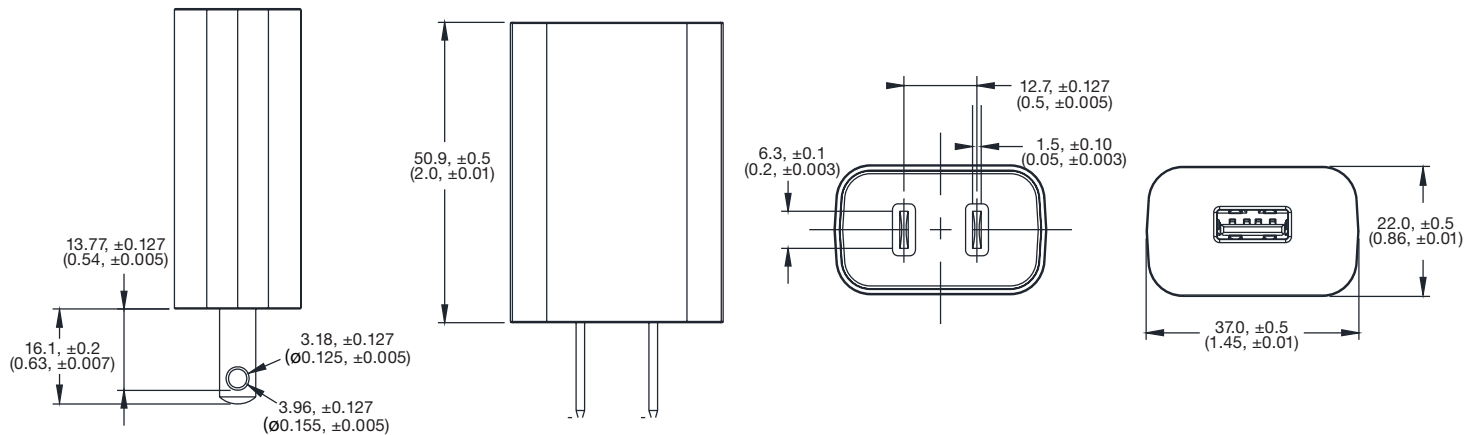
### VEU10US050-UK



### VEU10US050-EU



### VEU10US050-US



#### Notes:

1. Dimensions in mm (inches).

Specifications subject to change without notice.