

CB FC

IP22 Class I & II

**Product Features**

- Meet medical safety approvals
- 2 MOPP input to output isolation
- Leakage current  $\leq 100\mu\text{A}$
- Energy efficiency level VI
- $\leq 0.15\text{W}$  standby power
- Peak load: 140W MAX @Rated Input Voltage
- Up to 5,000m operating altitude
- 4 types of AC inlet

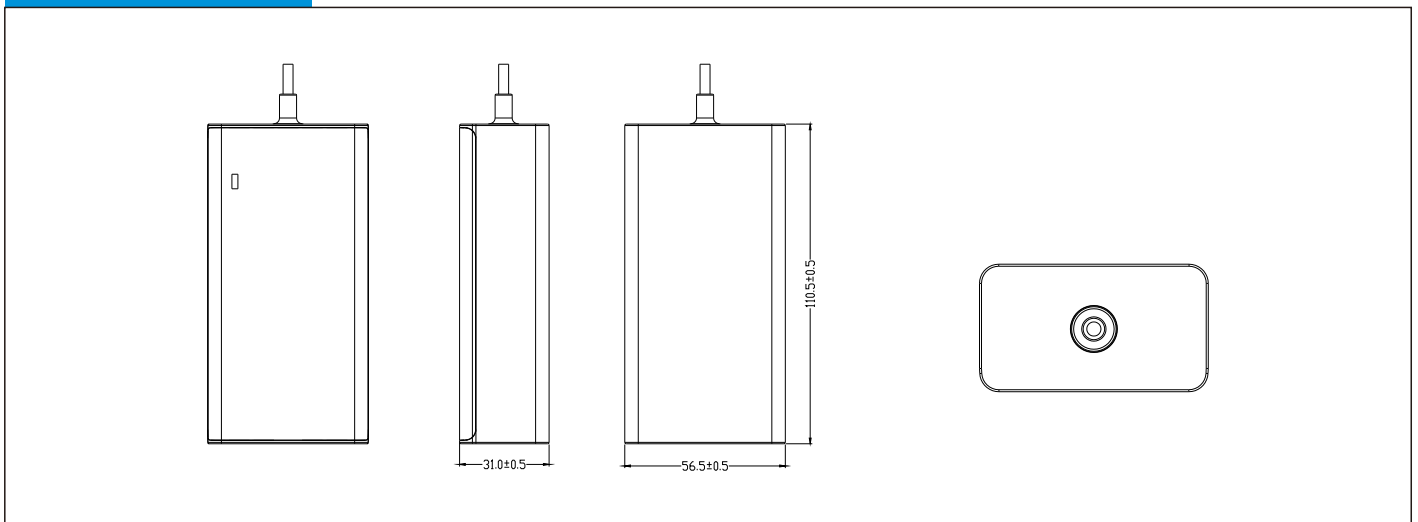


**Models & Ratings**

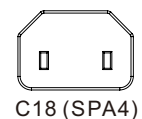
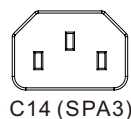
Model Number	Voltage <sup>(*)</sup> (V)	Current (A)	Rated Power	Ripple & Noise <sub>(max)</sub>	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES65CZ-XXXYYYSPA	12.0	0.01-5.0	60W	200mVpk-pk	$\pm 5\%$	Line: $\pm 1\%$ Load: $\pm 5\%$	88.0%	$\leq 3\text{s}$
	12.1-13.0	0.01-4.61	60W	200mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	13.1-14.0	0.01-4.28	60W	200mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	14.1-15.0	0.01-4.00	60W	200mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	19.0	0.01-3.42	65W	200mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	19.1-20.0	0.01-3.25	65W	240mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	20.1-21.0	0.01-3.09	65W	240mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	21.1-22.0	0.01-2.95	65W	240mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	22.1-23.0	0.01-2.82	65W	240mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$
	23.1-24.0	0.01-2.71	65W	240mVpk-pk	$\pm 5\%$		88.0%	$\leq 3\text{s}$

Model encoding: replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I), "4" for C18 (Class I) AC inlets

**Mechanical Details**



**AC Inlet Options**



Notes  
(\*1) Other options are available, please contact our sales representative for details.

**Input**

Input Voltage Range	80-264VAC(80-90VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	1.8A at 90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current <sup>(max)</sup>	≤100μA at 264VAC

**Environmental**

Operating Temperature	-30°C to 70°C(40°C to 70°C refer to derating curve )
Storage Temperature	-40°C to 85°C
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

**General**

Dimensions	110.5(L) 56.5(W) 31.0(H)mm
Power density	0.335W/cm <sup>3</sup>
Weight	260g
MTBF	>500,000hrs MIL-HK8K-217 at 25°C

**Protection**

Overload	220-330% rated output power, auto recovery
Over Voltage	110-145% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

**Safety Approvals**

Safety Agency / Mark	Medical
CB	IEC60601-1
NRTL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1
TUV-SUD/MARK	EN60601-1

**EMC**

Emissions	Medical
Conducted	IEC/EN 60601-1-2, CISPR 11
Radiated	IEC/EN 60601-1-2, CISPR 11
Harmonic Currents	EN61000-3-2, Class A
Voltage Flicker	EN61000-3-3
Immunity	IEC/EN 60601-1-2
ESD	EN61000-4-2 ±15kV air, ±8kV contact
Radiated Immunity	EN61000-4-3 10V/m, 3V/m 80MHz - 2.7GHz
EFT/Burst	EN61000-4-4 ±2kV on AC port, ±1kV on signal ports
Surge	EN61000-4-5 ±1KV line to line (DM)
Conducted Immunity	EN61000-4-6 3Vrms, 6Vrms (0.15MHz-80MHz)
Magnetic Field	EN61000-4-8 30 A/m
Dips & Interruptions	EN61000-4-11 0%, 70%, 0% of UT

**Others**

Dielectric Withstand Voltage	4000VAC input to output
Insulation Resistance	10M Ohms, 500VDC input to output

**Derating Curve**
