

Class I &amp; II

**Product Features**


- Medical safety approvals
- 2 MOPP input to output isolation
- Leakage current  $\leq 100\mu\text{A}$
- Up to 5,000m operating altitude
- Energy efficiency level VI
- $\leq 0.1\text{W}$  standby power



**Models & Ratings**


Model Number	Voltage <sup>(*)</sup>	Current	Rated Power	Ripple & Noise <sub>(max)<sup>(*)</sup>(2)</sub>	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES48DZ-XXXXYYSPA	12.0-13.0	0.01-3.69	48.00W	200mV	±5%	Line: ±2% Load: ±5%	87.77%	≤3s
	13.1-14.0	0.01-3.43	48.00W	200mV	±5%		87.77%	≤3s
	14.1-15.0	0.01-3.20	48.00W	200mV	±5%		87.77%	≤3s
	18.0-19.0	0.01-2.53	48.00W	200mV	±5%		87.77%	≤3s
	19.1-20.0	0.01-2.40	48.00W	200mV	±5%		87.77%	≤3s
	20.1-21.0	0.01-2.28	48.00W	200mV	±5%		87.77%	≤3s
	21.1-22.0	0.01-2.18	48.00W	240mV	±5%		87.77%	≤3s
	22.1-23.0	0.01-2.08	48.00W	240mV	±5%		87.77%	≤3s
	23.1-24.0	0.01-2.00	48.00W	240mV	±5%		87.77%	≤3s


**Mechanical Details**

**Interchangeable AC Plug Options**

  
C8(D1)

  
C6(D2)

  
C14(D3)

  
C18(D4)

Unit: mm

**Notes**

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

(\*) Measured at output connector with 20MHz bandwidth and 0.1uF ceramic in parallel with 10uF electrolytic capacitors.

**Input**

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.3A at 90VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current <sup>(max)</sup>	≤ 100µA at 264VAC

**Environmental**

Operating Temperature	0°C to 40°C
Storage Temperature	-40°C to 80°C
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

**General**

Dimensions	110.0(L)x51.5(W)x33.1(H)mm
Weight	205g
MTBF	>100,000hrs MIL-HK8K-217 at 25°C
Isolation	5,656VDC Input to Output

**Protection**

Overload	110-160% rated output power, auto recovery
Over Voltage	Min 120% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

**Safety Approvals**

Safety Agency / Mark	Medical(meet)
CB	IEC60601-1
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 ±2KV line to line, ±4KV line to GND
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	5,656VDC input to output
Insulation Resistance	100M Ohms, 500VDC input to output