UE Electronic

Switching Power Adaptor Desktop style

Universal 90 Watt - UES90-SPAZ Series

IP20&IP22 Class I & II

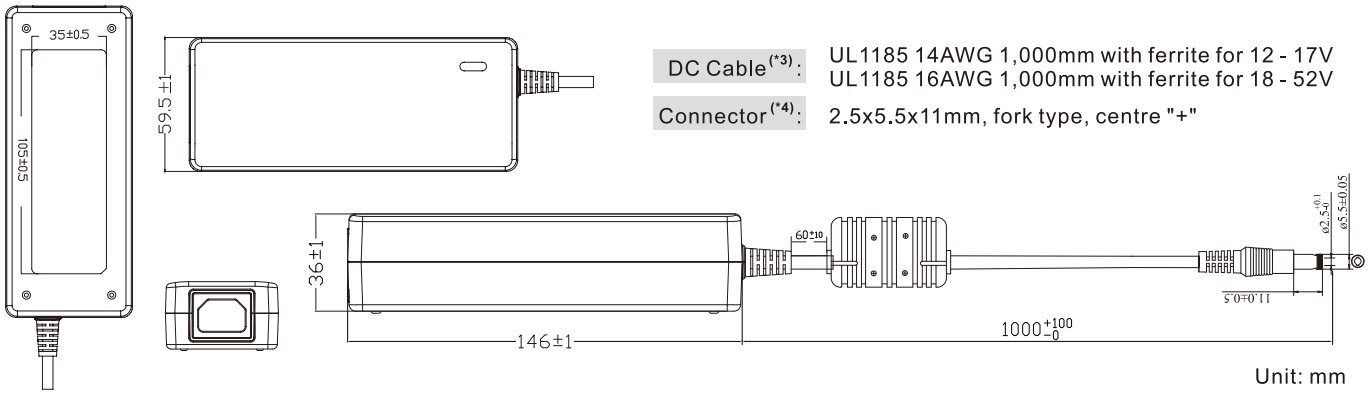
Product Features

- Medical safety approvals
- 2 MOPP input to output isolation
- Suitable for medical equipment up to class BF (^)
- Low leakage current ≤ 100μA
- DOE efficiency level VI
- CoC V5 Tier 2(2016)
- ≤ 0.15W standby power
- 12V to 52V outputs, up to 90W
- Up to 5,000m operating altitude
- 4 types of AC inlet

Models & Ratings

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES90-XXXYYYSPA1/ SPA2/ SPA3/ SPA4 UES90-XXXYYYSPA -OP	12.0	0.01-7.00	84W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	88.60%	≤3s
	15.0	0.01-5.33	84W	180mVpk-pk	±5%		88.60%	≤3s
	17.0	0.01-4.70	84W	200mVpk-pk	±5%		88.60%	≤3s
	19.0	0.01-4.74	90W	200mVpk-pk	±5%		88.60%	≤3s
	22.0	0.01-4.10	90W	200mVpk-pk	±5%		88.60%	≤3s
	24.0	0.01-3.75	90W	200mVpk-pk	±5%		88.60%	≤3s
	26.0	0.01-3.34	90W	200mVpk-pk	±5%		88.60%	≤3s
	30.0	0.01-3.00	90W	200mVpk-pk	±5%		88.60%	≤3s
	33.0	0.01-2.73	90W	200mVpk-pk	±5%		88.60%	≤3s
	36.0	0.01-2.50	90W	200mVpk-pk	±5%		88.60%	≤3s
	39.0	0.01-2.25	90W	240mVpk-pk	±5%		88.60%	≤3s
	43.0	0.01-2.10	90W	360mVpk-pk	±5%		88.60%	≤3s
	46.0	0.01-1.96	90W	480mVpk-pk	±5%		88.60%	≤3s
	48.0	0.01-1.88	90W	560mVpk-pk	±5%		88.60%	≤3s
	52.0	0.01-1.64	90W	560mVpk-pk	±5%		88.60%	≤3s

Mechanical Details



AC Inlet Options

C8 (SPA1) (*5) C6 (SPA2) C14 (SPA3) C18 (SPA4)

Notes
(*1, 3, 4) Other options are available, please contact our sales representative for details.
(*2) Measured at output connector with 20MHz bandwidth and 0.1uF ceramic in parallel with 10uF electrolytic capacitors.
(*5) Polarized C8 is available.
(^) Power supplies are not medical equipment (applied parts), medical product manufacturers shall take responsibility for further evaluation of class B/BF/CF compliance of their end product.

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.5A at 90VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 80℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	146(L)x59.5(W)x36(H)mm
Weight	420g
MTBF	>50,000hrs MIL-HDBK-217 at 25℃
Isolation	4,000VAC Input to Output
	1,500VAC Input to Ground (Class I version only)

Protection

Overload	130-200% rated output power, auto recovery
Over Voltage	130-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

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

EMC

Emissons	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 - 2.7GMHz
EFT/Burst	EN61000-4-4	±2kV on AC port, ±1kV on signal ports
Surge	EN61000-4-5	±1KV line to line (diff mode)
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	10M Ohms, 500VDC input to output