



CLASS I (VI)

**Product Features**

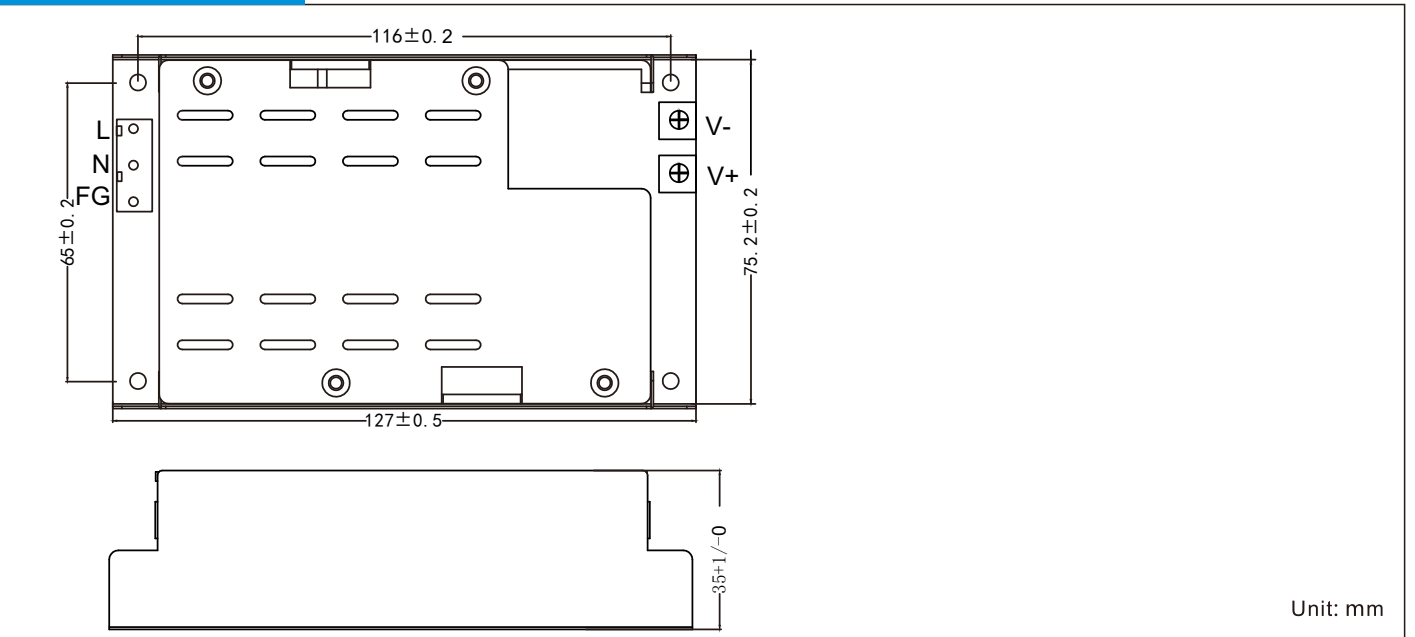
- Medical safety approvals
- 2 MOPP input to output isolation
- Leakage current  $\leq 100\mu\text{A}$
- Energy efficiency level VI
- $\leq 0.21\text{W}$  standby power
- Peak Load: 120% Rated Load(1s)
- Up to 5,000m operating altitude
- Fan less design, natural air cooling



**Models & Parameters**

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
UES240-XXXYYYYSPA-OP	11.0-12.0	0.01-18.00	216.0W	150mVpk-pk	$\pm 5\%$	Line: $\pm 1\%$ Load: $\pm 5\%$	90.0%	$\leq 3\text{s}$
	12.1-13.0	0.01-16.60	215.0W	150mVpk-pk	$\pm 5\%$		90.0%	$\leq 3\text{s}$
	13.1-14.0	0.01-15.40	215.0W	150mVpk-pk	$\pm 5\%$		90.0%	$\leq 3\text{s}$
	14.1-15.0	0.01-14.40	216.0W	150mVpk-pk	$\pm 5\%$		90.0%	$\leq 3\text{s}$
	18.0-19.0	0.01-12.60	239.4W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	19.1-20.0	0.01-12.00	240.0W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	20.1-21.0	0.01-11.43	240.0W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	21.1-22.0	0.01-10.90	239.8W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	22.1-23.0	0.01-10.40	239.2W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	23.1-24.0	0.01-10.00	240.0W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	24.1-25.0	0.01-9.60	240.0W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	25.1-26.0	0.01-9.23	240.0W	150mVpk-pk	$\pm 5\%$		91.0%	$\leq 3\text{s}$
	36.0-37.0	0.01-6.48	240.0W	200mVpk-pk	$\pm 5\%$		91.5%	$\leq 3\text{s}$
	37.1-38.0	0.01-6.31	239.8W	200mVpk-pk	$\pm 5\%$		91.5%	$\leq 3\text{s}$
	38.1-39.0	0.01-6.15	239.9W	200mVpk-pk	$\pm 5\%$		91.5%	$\leq 3\text{s}$
	39.1-40.0	0.01-6.00	240.0W	200mVpk-pk	$\pm 5\%$		91.5%	$\leq 3\text{s}$
	45.0-48.0	0.01-5.00	240.0W	250mVpk-pk	$\pm 5\%$		92.0%	$\leq 3\text{s}$
	48.1-49.0	0.01-4.89	236.6W	250mVpk-pk	$\pm 5\%$		92.0%	$\leq 3\text{s}$
	49.1-50.0	0.01-4.80	240.0W	250mVpk-pk	$\pm 5\%$		92.0%	$\leq 3\text{s}$
	50.1-51.0	0.01-4.70	239.7W	250mVpk-pk	$\pm 5\%$		92.0%	$\leq 3\text{s}$
51.1-52.0	0.01-4.60	239.2W	250mVpk-pk	$\pm 5\%$	92.0%	$\leq 3\text{s}$		
52.1-53.0	0.01-4.53	240.0W	250mVpk-pk	$\pm 5\%$	92.0%	$\leq 3\text{s}$		
53.1-54.0	0.01-4.44	239.8W	250mVpk-pk	$\pm 5\%$	92.0%	$\leq 3\text{s}$		

**Mechanical Details**



Notes

(\*1) 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

**Input**

Input Voltage Range	80-264VAC(80-115VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	4.0A max at 100VAC
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 fer to derating curve )
Storage Temperature	-40°C to 85°C
Operating Humidity	5% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

**General**

Dimensions	127.0(L) 76.2(W) 34.5(H)mm 5x3"
Power supply power density	0.718W/cm <sup>3</sup>
Weight	450g
MTBF	>500,000hrs MIL-HDBK-217 at 25 °C

**Protection**

Overload	125-150% rated output power, auto recovery
Over Voltage	120-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

**Safety Approvals**

Safety Agency / Mark	Medical	ITE (meet)
CB	IEC60601-1	IEC62368-1
NRTL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO.60601-1	UL62368-1
TÜV Mark	EN60601-1	-
FCC	-	FCC PART 15

**EMC**

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032
Harmonic Currents	EN61000-3-2, Class A	EN61000-3-2, Class A
Voltage Flicker	EN61000-3-3	EN61000-3-3
Immunity	IEC/EN60601-1-2	EN55035, CISPR 35
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m ,3V/m 80MHz - 2.7GMHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±2KV/Line-Line,±4KV/Line-Earth
Conducted Immunity	IEC61000-4-6	3Vrms, 6Vrms (0.15MHz-80MHz)
Magnetic Field	IEC61000-4-8	30 A/m
Dips & Interruptions	IEC61000-4-11	0%, 70%, 0% of UT

**Others**

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

**Derating Curve**
