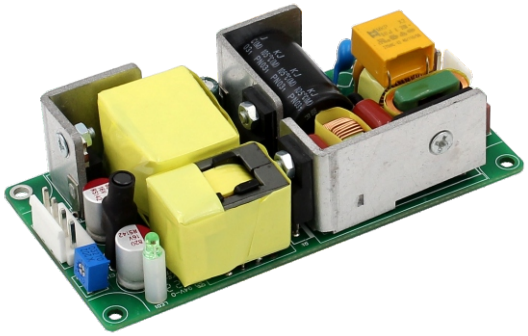
VI

Product Features

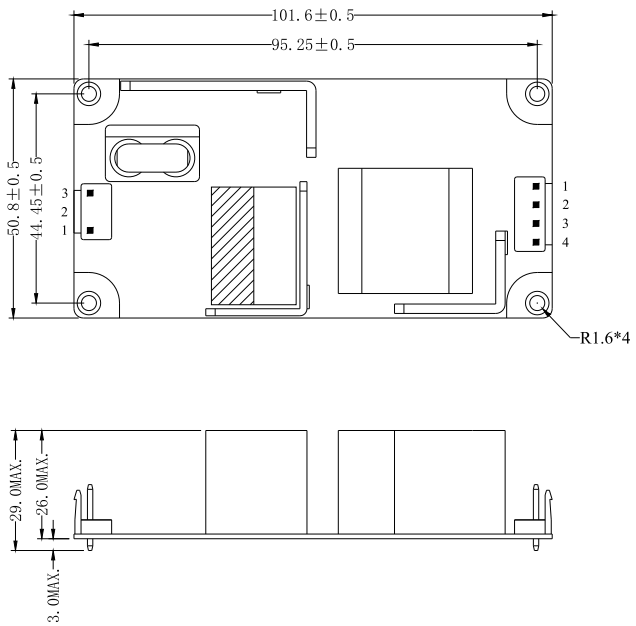


- Medical safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.21W standby power
- Peak Load : 200% Rated Load@230Vac
- Up to 5,000m operating altitude
- Adjustable resistance to adjust output voltage
- Fan less design, natural air cooling

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES90-XXXYYYSPA-OP1	12.00V	0.01-7.00A	84.0W	100mVpk-pk	±5%	Line: ±1% Load: ±5%	89.0%	≤3s
	15.00V	0.01-6.00A	90.0W	120mVpk-pk			89.0%	≤3s
	18.00V	0.01-5.00A	90.0W	150mVpk-pk			89.0%	≤3s
	24.00V	0.01-3.75A	90.0W	150mVpk-pk			90.0%	≤3s
	36.00V	0.01-2.50A	90.0W	150mVpk-pk			90.0%	≤3s
	48.00V	0.01-1.87A	90.0W	150mVpk-pk			90.0%	≤3s

Mechanical Details



AC Input Connector :
JST B3P-VH or equivalent

Pin No.	1	2	3
Assignment	AC/N	No Pin	AC/L

DC Output Connector :
JST B4P-VH or equivalent

Pin No.	1	2	3	4
Assignment	V+	V+	V-	V-

Unit: mm

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	90-264VAC(90-115VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	1.5A max at 100VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(45℃ to 70℃ refer to derating curve)
Storage Temperature	-40℃ to 80℃
Operating Humidity	5% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	101.6(L) 50.8(W) 29.0(H)mm
	4x2"
Weight	190g
MTBF	>200,000hrs MIL-HDBK-217 at 25℃

Protection

Overload	120-200% 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(meet)	ITE
CB	IEC60601-1	-
TUV-SUD-Mark	EN60601-1	-
NRTL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	-

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	-
Radiation	IEC/EN60601-1-2,CISPR 11	-
Harmonic Currents	EN61000-3-2, Class A	-
Voltage Flicker	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