



**Product Features**

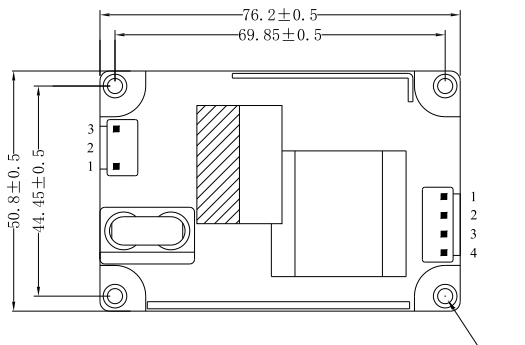
- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Energy efficiency level VI
- Leakage current < 100µA
- ≤ 0.15W standby power
- Up to 5,000m operating altitude



**Models & Ratings**

Model Number	Voltage <sup>(*)</sup>	Current	Rated Power	Ripple & Noise (max) <sup>(*)</sup>	Voltage Tolerance	Line & Load Regulation	Efficiency (typ.)	Start Up Delay
UES65-XXXYYYSPA5-OP	5.0	0.01-10.00	50W	80mVpk-pk	±5%	Line: ±1% Load: ±5%	89.0%	≤3s
	5.1-6.0	0.01-8.50	51W	80mVpk-pk	±5%		89.0%	≤3s
	6.1-7.5	0.01-8.00	60W	80mVpk-pk	±5%		89.0%	≤3s
	7.6-8.0	0.01-7.50	60W	120mVpk-pk	±5%		89.0%	≤3s
	8.1-9.0	0.01-6.66	60W	120mVpk-pk	±5%		89.0%	≤3s
	9.1-10.0	0.01-6.00	60W	120mVpk-pk	±5%		89.0%	≤3s
	10.1-11.0	0.01-5.50	60W	120mVpk-pk	±5%		89.0%	≤3s
	11.1-12.0	0.01-5.42	65W	120mVpk-pk	±5%		89.0%	≤3s
	12.1-13.0	0.01-5.00	65W	120mVpk-pk	±5%		89.0%	≤3s
	13.1-14.0	0.01-4.64	65W	120mVpk-pk	±5%		89.0%	≤3s
	14.1-15.0	0.01-4.33	65W	120mVpk-pk	±5%		89.0%	≤3s
	15.1-16.0	0.01-4.06	65W	120mVpk-pk	±5%		89.0%	≤3s
	16.1-17.0	0.01-3.82	65W	120mVpk-pk	±5%		89.0%	≤3s
	17.1-18.0	0.01-3.61	65W	120mVpk-pk	±5%		89.0%	≤3s
	18.1-19.0	0.01-3.42	65W	120mVpk-pk	±5%		89.0%	≤3s
	19.1-20.0	0.01-3.25	65W	120mVpk-pk	±5%		89.0%	≤3s
	20.1-21.0	0.01-3.09	65W	120mVpk-pk	±5%		89.0%	≤3s
	21.1-22.0	0.01-2.95	65W	120mVpk-pk	±5%		89.0%	≤3s
	22.1-23.0	0.01-2.82	65W	120mVpk-pk	±5%		89.0%	≤3s
	23.1-24.0	0.01-2.70	65W	120mVpk-pk	±5%		90.0%	≤3s
	24.1-27.0	0.01-2.40	65W	150mVpk-pk	±5%		90.0%	≤3s
	27.1-30.0	0.01-2.16	65W	150mVpk-pk	±5%		90.0%	≤3s
	30.1-33.0	0.01-1.96	65W	150mVpk-pk	±5%		90.0%	≤3s
	33.1-36.0	0.01-1.80	65W	150mVpk-pk	±5%		90.5%	≤3s
	36.1-39.0	0.01-1.66	65W	150mVpk-pk	±5%		90.5%	≤3s
	39.1-42.0	0.01-1.54	65W	150mVpk-pk	±5%		90.5%	≤3s
	42.1-45.0	0.01-1.44	65W	150mVpk-pk	±5%		90.5%	≤3s
	45.1-48.0	0.01-1.35	65W	150mVpk-pk	±5%		91.0%	≤3s

**Mechanical Details**

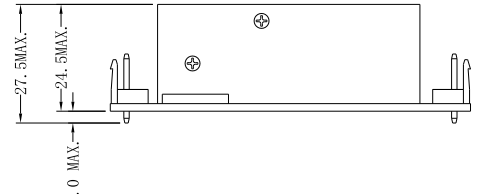


**AC Input Connector :**  
JST B3P-VH or equivalent

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 0.1µF ceramic in parallel with 10µF electrolytic capacitors.

**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 <sup>(max)</sup>	< 100µA at 264VAC

**Environmental**

Operating Temperature	-30°C to 50°C
Storage Temperature	-30°C to 70°C
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

**General**

Dimensions	76.2(L) 50.8(W) 27.5(H)mm 3x2"
Weight	110g
MTBF	>100,000hrs MIL-HK8K-217 at 25°C
Isolation	5,656VDC Input to Output

**Protection**

Overload	120-170% 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	-
TUV-Mark	EN60601-1	EN62368-1
UL	ANSI/AAMI ES60601-1	

**EMC**

Emissions	Medical	ITE
Conducted	IEC/EN 60601-1-2, CISPR 11	EN55032, CISPR 32
Radiated	IEC/EN 60601-1-2, CISPR 11	EN55032, CISPR 32
Harmonic Currents	EN61000-3-2, Class A	EN61000-3-2, Class A
Voltage Flicker	EN61000-3-3	EN61000-3-3
Immunity	IEC/EN 60601-1-2	EN55035, CISPR 35
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	±2KV 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