



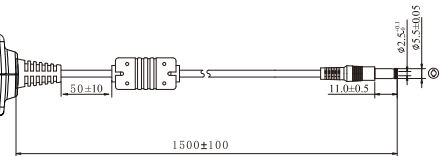
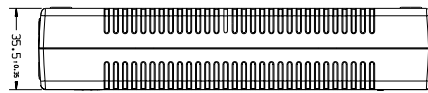
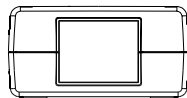
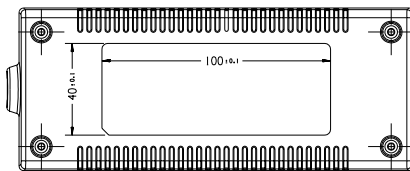
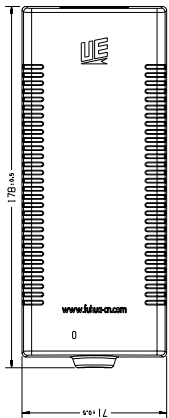
Product Features

- Medical & ITE safety approvals
- 2 MOOP input to output isolation
- Suitable for medical equipment up to class BF ^(^)
- Leakage current $\leq 250\mu\text{A}$
- $\leq 0.5\text{W}$ standby power
- 12V to 48V outputs, up to 120W
- Up to 2,000m operating altitude
- 3 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
UE120-120YYYSPA1/SPA2/SPA3	12.0	0.01-8.33	100W	200mVpk-pk	$\pm 5\%$	Line: $\pm 1\%$ Load: $\pm 5\%$	87.00%	$\leq 3\text{s}$
UE120-135YYYSPA1/SPA2/SPA3	13.5	0.01-7.40	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-138YYYSPA1/SPA2/SPA3	13.8	0.01-7.25	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-150YYYSPA1/SPA2/SPA3	15.0	0.01-6.66	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-160YYYSPA1/SPA2/SPA3	16.0	0.01-6.25	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-170YYYSPA1/SPA2/SPA3	17.0	0.01-5.88	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-180YYYSPA1/SPA2/SPA3	18.0	0.01-5.55	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-190YYYSPA1/SPA2/SPA3	19.0	0.01-5.26	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-200YYYSPA1/SPA2/SPA3	20.0	0.01-5.00	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-220YYYSPA1/SPA2/SPA3	22.0	0.01-4.54	100W	200mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-240YYYSPA1/SPA2/SPA3	24.0	0.01-5.00	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-260YYYSPA1/SPA2/SPA3	26.0	0.01-4.62	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-280YYYSPA1/SPA2/SPA3	28.0	0.01-4.28	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-295YYYSPA1/SPA2/SPA3	29.5	0.01-4.06	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-300YYYSPA1/SPA2/SPA3	30.0	0.01-4.00	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-330YYYSPA1/SPA2/SPA3	33.0	0.01-3.63	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-360YYYSPA1/SPA2/SPA3	36.0	0.01-3.33	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$
UE120-480YYYSPA1/SPA2/SPA3	48.0	0.01-2.50	120W	300mVpk-pk	$\pm 5\%$		87.00%	$\leq 3\text{s}$

Mechanical Details


DC Cable ^(*3): UL1185 14AWG 1,500mm

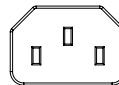
Connector ^(*4): 2.5x5.5x11mm, fork type, centre "+"

Unit: mm

AC Inlet Options


C8 (SPA1) ^(*5)


C6 (SPA2)



C14 (SPA3)

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	2.0A at 90VAC
Inrush Current	40A max at 115VAC cold start
Touch Leakage Current ^(max)	Class I ≤ 250μA & Class II ≤ 250μA at 264VAC

Environmental

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to 80°C
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	2,000m

General

Dimensions	172.5(L)x71(W)x35.5(H)mm
Weight	600g
MTBF	>100,000hrs MIL-HDBK-217 at 25°C
Isolation	4,000VAC Input to Output 1,500VAC Input to Ground (Class I version only)

Protection

Overload	120-280% rated output power, auto recovery
Over Voltage	120-200% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	IEC60950-1
UL	ANSI/AAMI ES60601-1	-
TUV	CAN/CSA C22.2 NO. 60601-1	-
CCC	EN60601-1	EN60950-1 GB4943.1(For Class I only)

EMC

Emissions	Medical	ITE
Conducted	IEC/EN 60601-1-2, CISPR 11	EN55022, CISPR 22
Radiated	IEC/EN 60601-1-2, CISPR 11	EN55022, CISPR 22
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	EN55024, CISPR 24
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	2,121VDC for Class I / 5,656VDC for Class II input to output
Insulation Resistance	10M Ohms, 500VDC input to output