UE Electronic

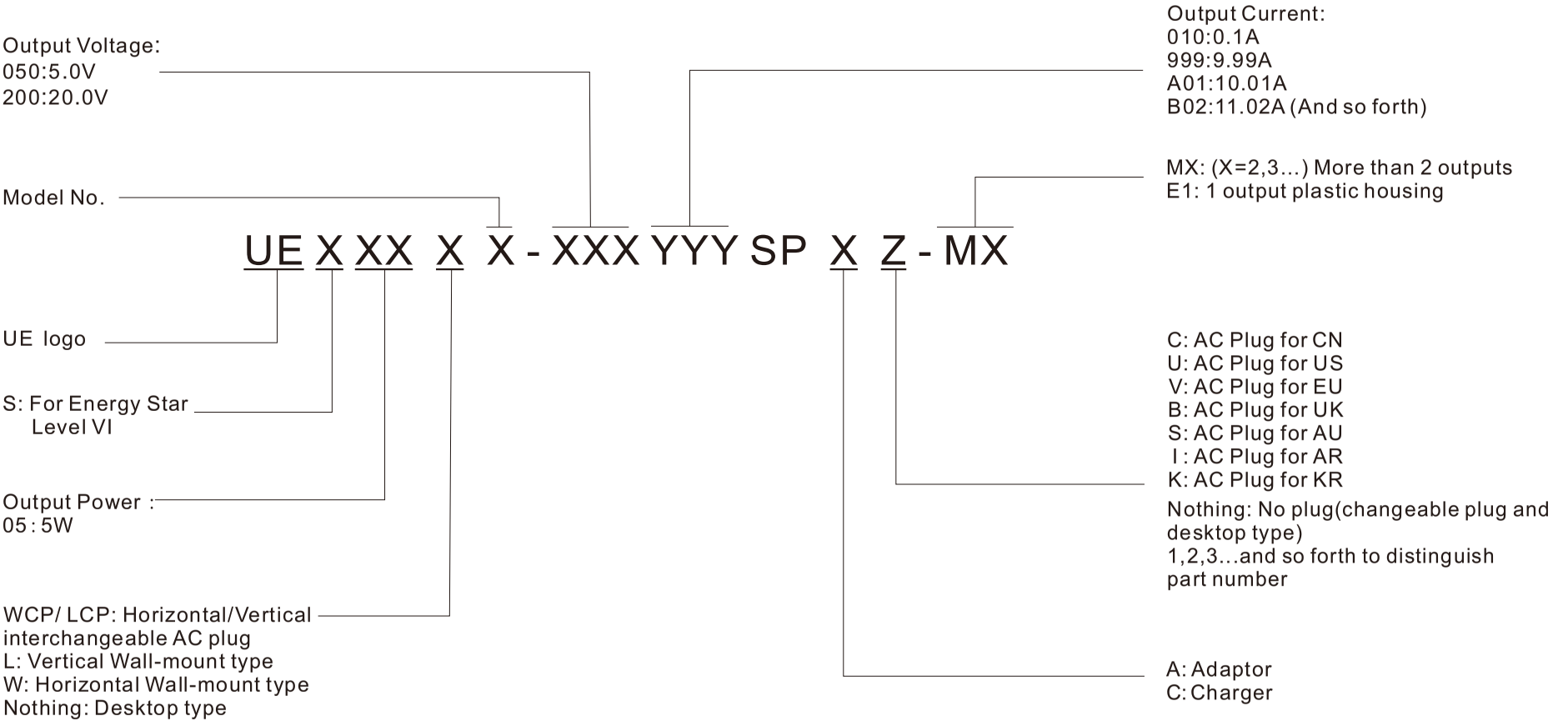
Global Power Supply Provider

2 MOPP
ISO13485
EN60601-1 / 60601-1-11
IEC60601-1 / 60601-1-11
ANSI / AAMI ES60601-1 / 60601-1-11

Medical Power Supply 2026

UE Electronic

Coding Rules



Contents

Contents

UE Electronic

Switching Power Adaptor
Desktop style

Universal 15 Watt - UES15D-SPA Series

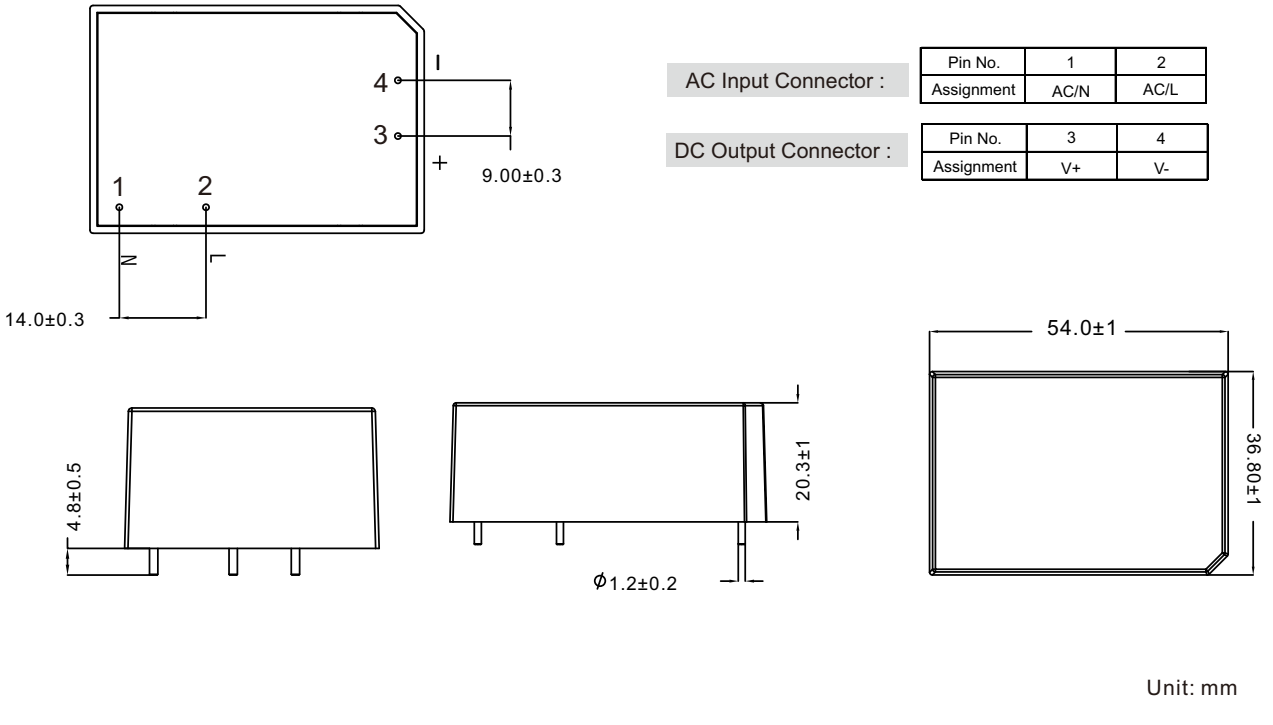
Product Features

- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- ≤ 0.25W standby power
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage (*1)	Current	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES15D-XXXYYYSPA	5.0	0.01-3.00	15.0W	150mVpk-pk	±5%	Line: ±5%	81.30%	≤0.8s
	6.0	0.01-2.50	15.0W	150mVpk-pk	±5%	Line: ±5%	84.10%	≤0.8s
	9.0	0.01-1.67	15.0W	150mVpk-pk	±5%	Line: ±5%	84.10%	≤0.8s
	12.0	0.01-1.25	15.0W	150mVpk-pk	±5%	Line: ±5%	84.10%	≤0.8s
	15.0	0.01-1.00	15.0W	150mVpk-pk	±5%	Line: ±5%	84.10%	≤0.8s
	18.0	0.01-0.83	15.0W	150mVpk-pk	±5%	Line: ±5%	84.10%	≤0.8s
	24.0	0.01-0.62	15.0W	150mVpk-pk	±5%	Line: ±5%	84.10%	≤0.8s

Mechanical Details



AC Input Connector :

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

DC Output Connector :

Pin No.	3	4
Assignment	V+	V-

Unit: mm

Input

Input Voltage Range	85-265VAC
Frequency Range	47-63Hz
Input Current	0.5A at 100VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-25℃ to 65℃
Storage Temperature	-25℃ to 85℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	10% to 90% RH
Operating Altitude	5,000m

General

Dimensions	54.0(L) 36.8(W) 20.3(H)mm
Weight	48g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-180% rated output power, auto recovery
Over Voltage	150% Max output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical(Meet)	ITE(Meet)
CE	EN 60601-1	EN 62368-1
CB	IEC 60601-1	IEC 62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	
TUV-MARK	EN 60601-1	

EMC

Emissons		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	±1KV line to line (diff mode)	
Conducted Immunity	EN61000-4-6	3Vrms(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	4,000VAC input to output
Insulation Resistance	10M Ohms, 500VDC input to output

UE Electronic

Switching Power Adaptor
Open frame style

Universal 20Watts - UE20-SPA-OP Series

CB

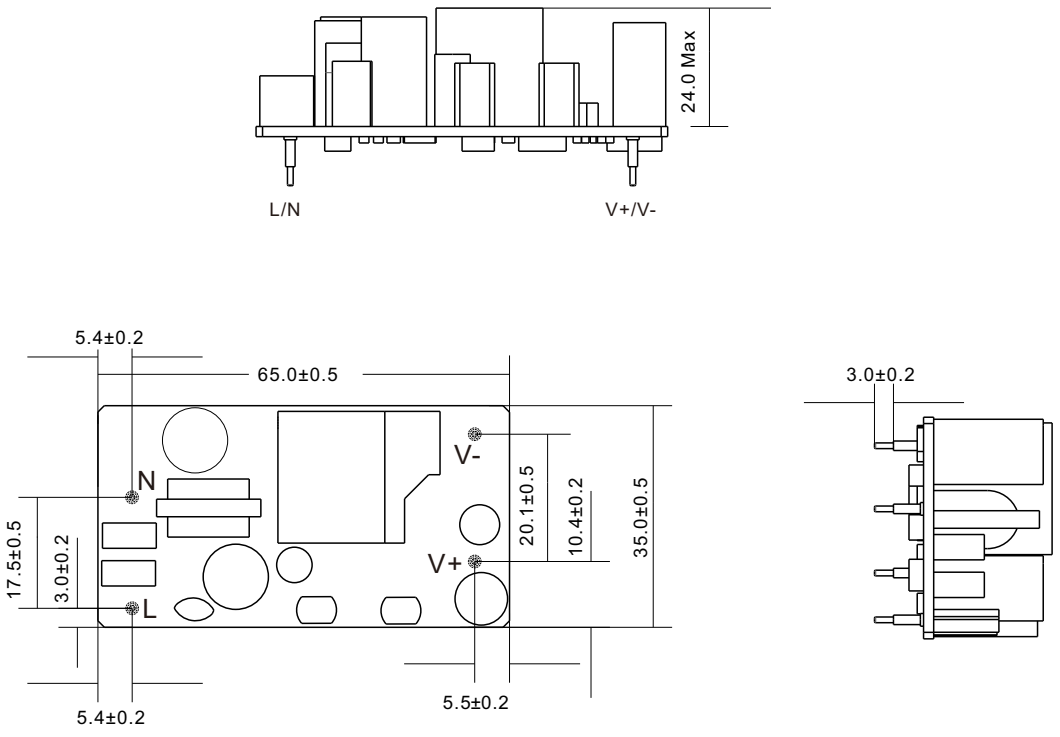
Product Features

- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level V
- ≤ 0.3W standby power
- Up to 5,000m operating altitude

Models & Parameters

Model Number	Voltage (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UE20-XXXYYYSPA-OP	9.0	1.67	15.03W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	79.16%	≤3s
	12.0	1.67	20.04W	200mVpk-pk	±5%		80.97%	≤3s
	15.0	1.34	20.01W	200mVpk-pk	±5%		80.98%	≤3s

Mechanical Details



Unit: mm

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 100VAC
Inrush Current	60A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-10℃ to 70℃(50℃ to 70℃ refer to derating curve)
Storage Temperature	-20℃ to 70℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	65.0(L) 35.0(W) 24.0(H)mm
Weight	54g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-210% rated output power, auto recovery
Over Voltage	105-250% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical
CB	IEC60601-1
TüV Mark	EN60601-1

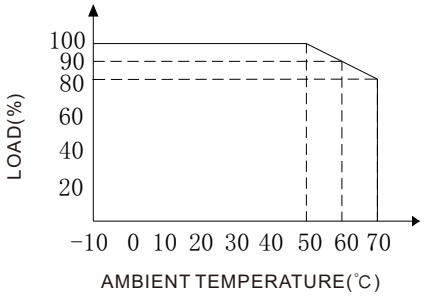
EMC

Emission	Medical		ITE
Conduction	IEC/EN60601-1-2,CISPR 11		EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±1KV line to line (DM)	
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



UE Electronic

Switching Power Adaptor
Desktop style

Universal 30 Watt - UES30D-SPA Series

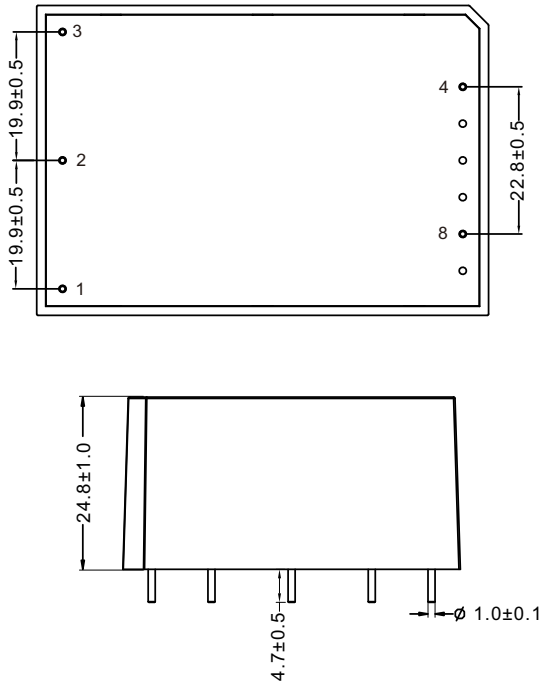
Product Features

- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- ≤ 0.3W standby power
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage	Current	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES30D-XXXYYYSPA	5.0	0.01-6.00	30.0W	150mVpk-pk	±5%	Line: ±5%	85.07%	≤3s
	6.0	0.01-5.00	30.0W	150mVpk-pk	±5%	Line: ±5%	85.07%	≤3s
	9.0	0.01-3.33	30.0W	150mVpk-pk	±5%	Line: ±5%	86.95%	≤3s
	12.0	0.01-2.50	30.0W	150mVpk-pk	±5%	Line: ±5%	86.95%	≤3s
	15.0	0.01-2.00	30.0W	150mVpk-pk	±5%	Line: ±5%	86.95%	≤3s
	18.0	0.01-1.66	30.0W	150mVpk-pk	±5%	Line: ±5%	86.95%	≤3s
	24.0	0.01-1.25	30.0W	150mVpk-pk	±5%	Line: ±5%	86.95%	≤3s

Mechanical Details

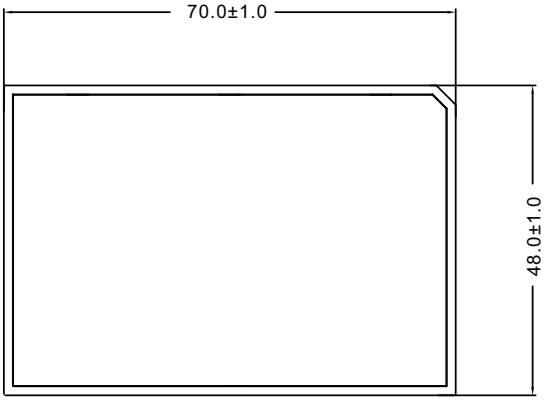


AC Input Connector :

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

DC Output Connector :

Pin No.	4	8		
Assignment	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	85-265VAC
Frequency Range	47-63Hz
Input Current	1.0A at 100VAC
Inrush Current (max)	100A max at 240VAC cold start
Touch Leakage Current	≤100μA at 264VAC

Environmental

Operating Temperature	-25℃ to 65℃
Storage Temperature	-25℃ to 70℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	10% to 90% RH
Operating Altitude	5,000m

General

Dimensions	70.0(L) 48.0(W) 24.5(H)mm
Weight	120g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-180% rated output power, auto recovery
Over Voltage	150% Max output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical(Meet)	ITE(Meet)
CQC	-	GB4943.1
CB	IEC60601-1	IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL62368-1

EMC

Emissons		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	
RadiatedImmunity	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 (diff mode)	
ConductedImmunity	EN61000-4-6	3Vrms, 6Vrms (0.15MHz-80MHz)	
MagneticField	EN61000-4-8	30 A/m	
Dips & Interruptions	EN61000-4-11	0%, 70%, 0% of UT	

Others

Dielectric Withstand Voltage	4,000VAC input to output
Insulation Resistance	10M Ohms, 500VDC input to output

UE Electronic

CB

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Switching Power Adaptor
Open frame style

Universal 36 Watts - UES36-SPA-OP3 Series

Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.1W standby power
- 9.0V-24.0V outputs, up to 36W
- Up to 5,000m operating altitude
- Convection cool

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
UES36-XXXYYYSPA-OP3	9.0	3.00	27.00W	200mVpk-pk	±5%	Line: ±2% Load:±5%	86.62%	≤3s
	12.0	3.00	36.00W	200mVpk-pk	±5%		87.40%	≤3s
	15.0	2.40	36.00W	200mVpk-pk	±5%		87.40%	≤3s
	19.0	1.89	36.00W	200mVpk-pk	±5%		87.40%	≤3s
	24.0	1.50	36.00W	200mVpk-pk	±5%		87.40%	≤3s

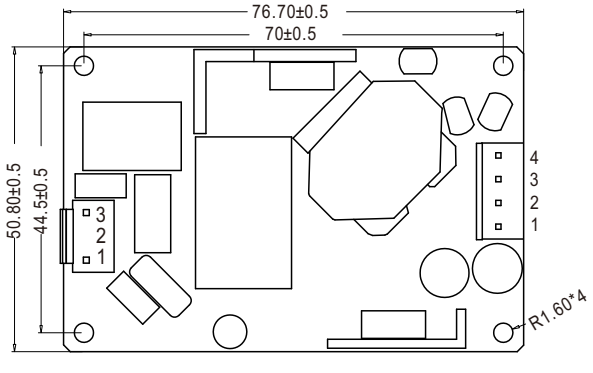
Mechanical Details

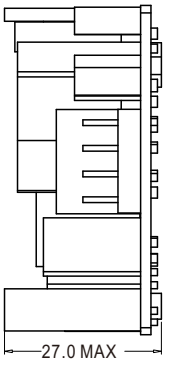
AC Input Connector :
JST B3P-VH or equivalent

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

UE Electronic

Switching Power Adaptor
Open frame style

Universal 36 Watts - UES36-SPA-OP3 Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.2A at 90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-10℃ to 50℃
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	76.7(L) 50.8(W) 27.0(H)mm
	3x2''
Weight	75g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-200% rated output power, auto recovery
Over Voltage	110-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical(meet)	ITE
CB	IEC60601-1	-

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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 to line (DM)
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

UE Electronic

Switching Power Supply
Open frame style

Universal 48 Watt - UES48-SPA-OP1 Series

CB VI

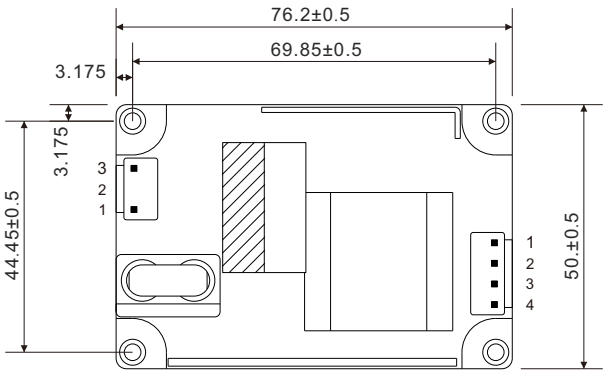
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Energy efficiency level VI
- Leakage current < 10μA
- ≤ 0.075W standby power
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage(*1)	Current	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (typ.)	Start Up Delay
UES48-XXXYYYSPA-OP1	24.0V	0.01-2.0	48W	300mVpk-pk	±5%	Line: ±1% Load: ±5%	89.0%	≤3s
	24.1-25.0	0.01-1.92	48W	300mVpk-pk	±5%		89.0%	≤3s
	25.1-26.0	0.01-1.84	48W	300mVpk-pk	±5%		89.0%	≤3s
	26.1-27.0	0.01-1.77	48W	300mVpk-pk	±5%		89.0%	≤3s
	27.1-28.0	0.01-1.71	48W	300mVpk-pk	±5%		89.0%	≤3s
	28.1-29.0	0.01-1.65	48W	300mVpk-pk	±5%		89.0%	≤3s
	29.1-30.0	0.01-1.60	48W	300mVpk-pk	±5%		89.0%	≤3s
	30.1-31.0	0.01-1.54	48W	300mVpk-pk	±5%		89.0%	≤3s
	31.1-32.0	0.01-1.50	48W	300mVpk-pk	±5%		89.0%	≤3s
	32.1-33.0	0.01-1.45	48W	300mVpk-pk	±5%		89.0%	≤3s
	33.1-34.0	0.01-1.41	48W	300mVpk-pk	±5%		89.0%	≤3s
	34.1-35.0	0.01-1.37	48W	300mVpk-pk	±5%		89.0%	≤3s
	35.1-36.0	0.01-1.33	48W	300mVpk-pk	±5%		89.0%	≤3s

Mechanical Details

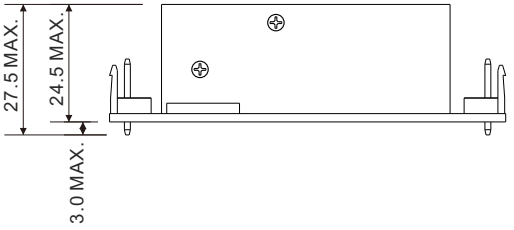


AC Input Connector :
JST B3P-VH or equivalent

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.

UE Electronic

Switching Power Supply
Open frame style

Universal 48 Watt - UES48-SPA-OP1 Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.2A at 90VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	< 10μA at 264VAC

Environmental

Operating Temperature	-30℃ to 60℃
Storage Temperature	-30℃ to 70℃
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 Telcordia_SR-332 at 25℃
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	-

EMC

Emissons			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

UE Electronic

Switching Power Adaptor
Open frame style

Universal 65 Watt - UES65-SPA5-OP Series

CB TÜV c UL us VI

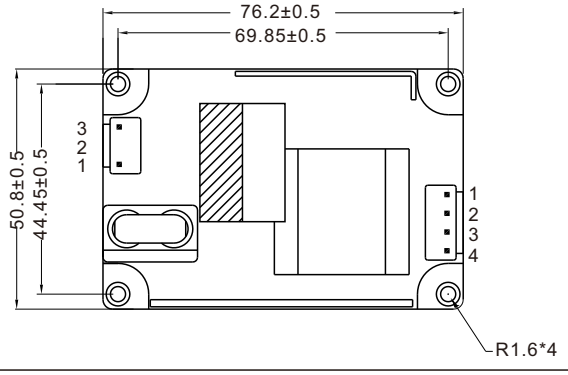
Product Features

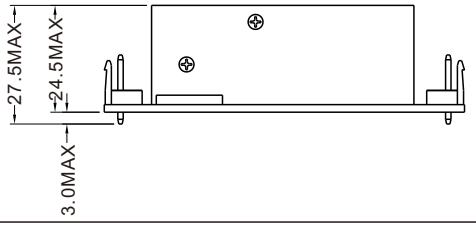
- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Energy efficiency level VI
- Leakage current < 100μA
- ≤ 0.15W standby power
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage(*1)	Current	Rated Power	Ripple & Noise (max)(*2)	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 0.1uF ceramic in parallel with 10uF electrolytic capacitors.

UE Electronic

Switching Power Adaptor
Open frame style

Universal 65 Watt - UES65-SPA5-OP Series

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	-30℃ to 50℃
Storage Temperature	-30℃ to 70℃
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 Telcordia_SR-332 at 25℃
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	-
UL	ANSI/AAMI ES60601-1	

EMC

Emissons		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

Ⅵ

Product Features

- Medical & I.T.E. 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
- Convection cool

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

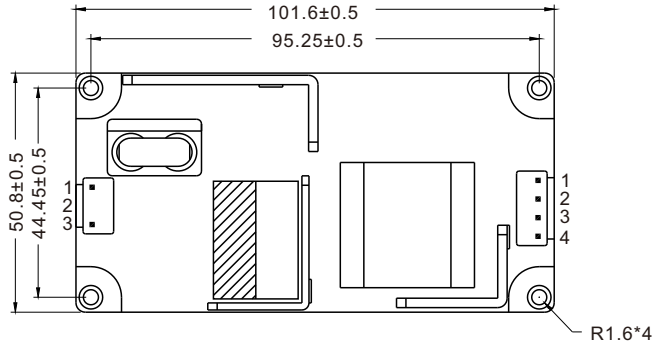
Mechanical Details

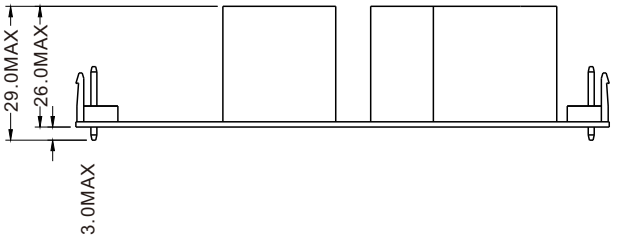
AC Input Connector :
JST B3P-VH or equivalent

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

UE Electronic

Switching Power Supply
Open frame style

Universal 90 Watt - UES90-SPA-OP1

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 Telcordia_SR-332 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	-

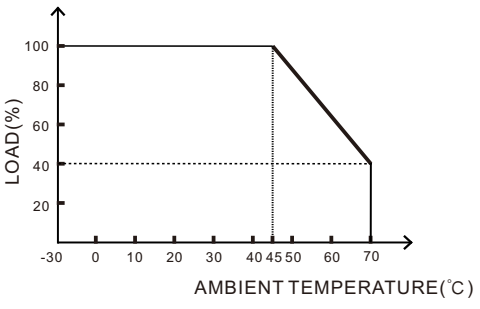
EMC

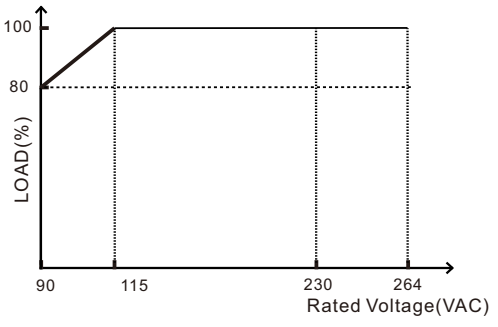
Emission	Medical		ITE
Conduction	IEC/EN60601-1-2,CISPR 11		-
Radiation	IEC/EN60601-1-2,CISPR 11		-
Harmonic Currents	EN61000-3-2, Class A		-
Voltage Flicker	EN61000-3-3		-
Immunity	**IEC/EN60601-1-2**		**EN55035, CISPR 35**
ESD	IEC61000-4-2	±15KV air, ±8KV contact	
Radiated Immunity	IEC61000-4-3	10V/m ,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





CB

CLASS I & II

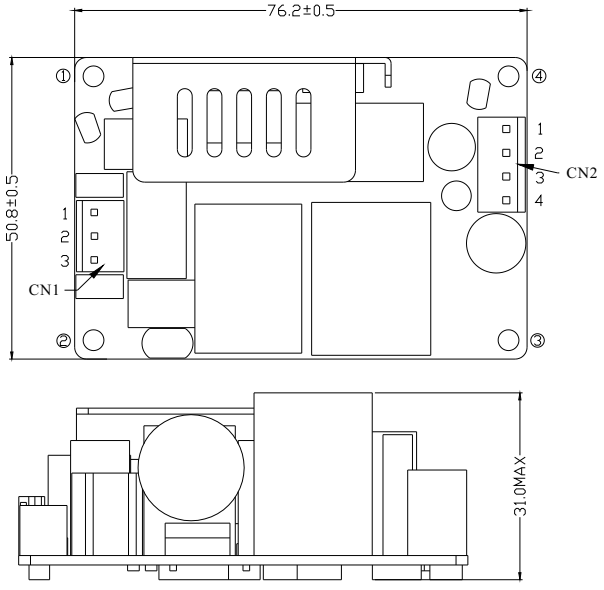
Product Features

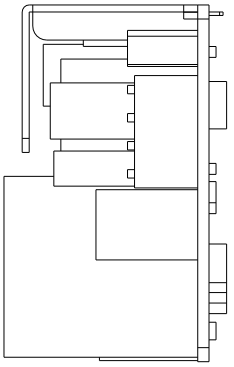
- Medical safety approvals
- 2 MOPP input to output isolation
- Leakage current: ≤ 100μA
- Efficiency up to 95%
- ≤ 0.5W standby power
- Peak Load : 125% Rated Load (10s)
- Up to 5,000m operating altitude
- Convection cool

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency	Start Up Delay
UES120-XXXYYYSPAZ-OP (*3)	12.0	10.00	120.00W	150mVpk-pk	±5%	Line:±1% Load:±2%	92.0%	≤3s
	15.0	8.00	120.00W	150mVpk-pk	±5%		92.0%	≤3s
	18.0	6.66	119.88W	180mVpk-pk	±5%		93.0%	≤3s
	19.0	6.31	119.89W	180mVpk-pk	±5%		93.0%	≤3s
	24.0	5.00	120.00W	240mVpk-pk	±5%		93.0%	≤3s
	27.0	4.44	119.88W	300mVpk-pk	±5%		93.0%	≤3s
	36.0	3.33	119.88W	300mVpk-pk	±5%		94.0%	≤3s
	48.0	2.50	120.00W	400mVpk-pk	±5%		95.0%	≤3s
	54.0	2.22	119.88W	400mVpk-pk	±5%		95.0%	≤3s

Mechanical Details





AC Input Connector(CN1) :
JST B3P-VH or equivalent

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

DC Output Connector(CN2):
JST B4P-VH or equivalent

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

NOTES:

1. Both positions ① and ④ of the CLASS I system must be short circuited and connected to the input ground.
2. Both positions ① and ④ of the CLASS II system must be short circuited.

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

(*3) "Z" represents "1" or "2": "1" refers to the CLASS II standard, used for 2PIN input; "2" refers to the CLASS I standard, used for 3PIN input.

UE Electronic

Switching Power Supply
Open Frame Style

Universal 120 Watt - UES120-SPAZ-OP

Input

Input Voltage Range	85-264VAC(85-115VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	2.0A max at 100VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 85℃(40-85℃ refer to derating curve)
Storage Temperature	-40℃ to 85℃
Operating Humidity	5% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	76.2(L) 50.8(W) 31.0(H)mm
	3x2"
Weight	130g
MTBF	>1000,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-180% rated output power, auto recovery
Over Voltage	110-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	-

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	-

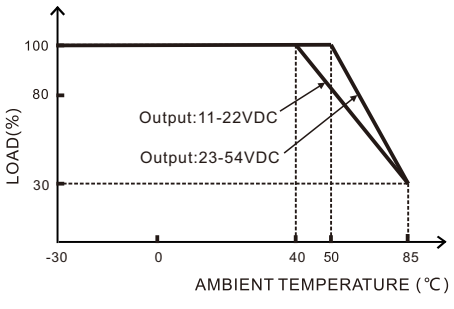
Immunity	IEC/EN60601-1-2	
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m ,3V/m 80MHz - 2.7GMHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±2KV line - line ,±4KV line - earth
Conducted Immunity	IEC61000-4-6	3Vrms, 6Vrms (0.15MHz-80MHz)
Magnetic Field	IEC61000-4-8	30 A/m
Dips & Interruptions	IEC61000-4-11	0%, 70%, 0% of UT

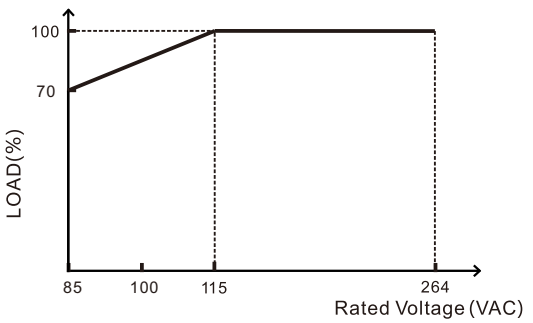
NOTE:
The power supply is considered a component which will be installed into a final equipment. All EMC tests are executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives.

Others

Dielectric Withstand Voltage	4000VAC input to output
Insulation Resistance	100M Ohms, 500VDC input to output

Derating Curve





UE Electronic

Switching Power Supply
Open frame style

Universal 150 Watt - UES150-SPA-OP

CB

VI

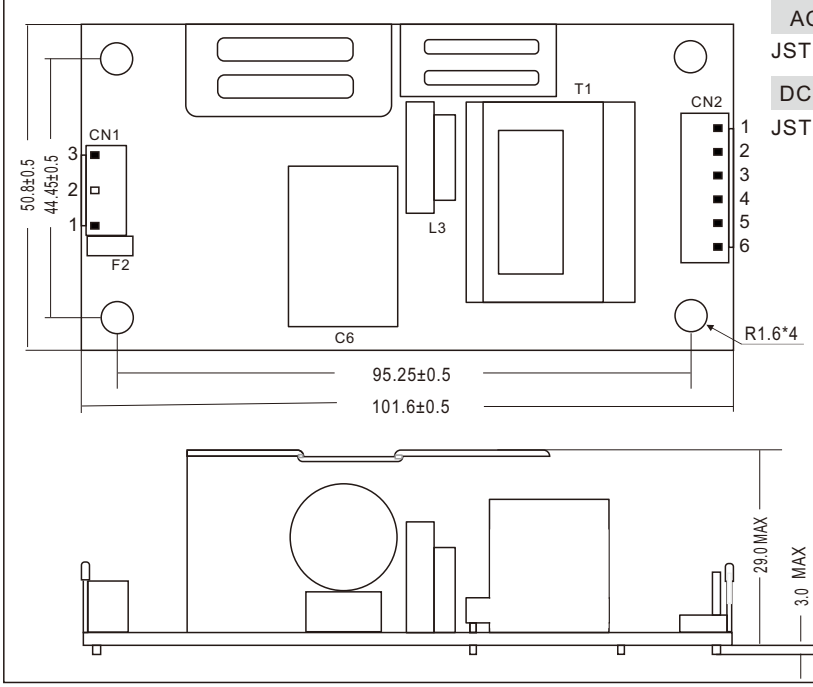
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current: ≤ 100μA
- Energy efficiency level VI
- ≤ 0.21W standby power
- Peak Load : 150% Rated Load @ 230Vac
- Up to 5,000m operating altitude
- Adjustable resistance to adjust output voltage
- Convection cool

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
UES150-XXXYYYSPA-OP	12.00V	0.01-11.00A	132.0W	100mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	15.00V	0.01-9.00A	135.0W	100mVpk-pk	±5%		92.0%	≤3s
	18.00V	0.01-8.00A	144.0W	120mVpk-pk	±5%		93.0%	≤3s
	24.00V	0.01-6.00A	144.0W	120mVpk-pk	±5%		93.0%	≤3s
	36.00V	0.01-4.00A	144.0W	120mVpk-pk	±5%		94.0%	≤3s
	48.00V	0.01-3.12A	150.0W	120mVpk-pk	±5%		94.0%	≤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 B6P-VH or equivalent

Pin No.	1	2	3	4	5	6
Assignment	V+	V+	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 47uF electrolytic capacitors

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	2.0A max at 100VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(50℃ 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) 32.0(H)mm
	4x2"
Weight	180g
MTBF	>200,000hrs Telcordia_SR-332 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	ITE
CB	IEC60601-1	-

EMC

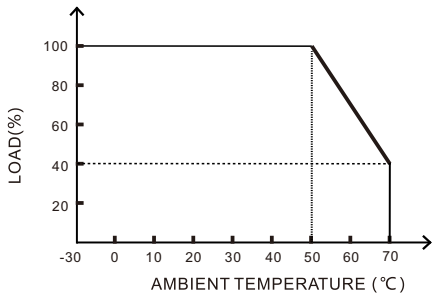
Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11 (*1)	-
Radiation	IEC/EN60601-1-2,CISPR 11 (*1)	-
Harmonic Currents	EN61000-3-2, Class A	-
Voltage Flicker	EN61000-3-3	-

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



Notes
(*1) Class Ⅰ meets Class A,Class Ⅱ meets Class B.

UE Electronic

Switching Power Adaptor
Open frame style

Universal 240 Watt - UES240-SPA-OP

CB FC TÜV TÜV

CLASS I VI

Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current: ≤ 100μA
- Energy efficiency level VI
- ≤ 0.21W standby power
- Peak Load : 120% Rated Load (1s)
- Up to 5,000m operating altitude
- Convection cool

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
UES240-XXXYYYSPA-OP	11.0-12.0	0.01-18.00	216.0W	150mVpk-pk	±5%	Line:±1% Load:±5%	90.0%	≤3s
	12.1-13.0	0.01-16.60	215.0W	150mVpk-pk	±5%		90.0%	≤3s
	13.1-14.0	0.01-15.40	215.0W	150mVpk-pk	±5%		90.0%	≤3s
	14.1-15.0	0.01-14.40	216.0W	150mVpk-pk	±5%		90.0%	≤3s
	18.0-19.0	0.01-12.60	239.4W	150mVpk-pk	±5%		91.0%	≤3s
	19.1-20.0	0.01-12.00	240.0W	150mVpk-pk	±5%		91.0%	≤3s
	20.1-21.0	0.01-11.43	240.0W	150mVpk-pk	±5%		91.0%	≤3s
	21.1-22.0	0.01-10.90	239.8W	150mVpk-pk	±5%		91.0%	≤3s
	22.1-23.0	0.01-10.40	239.2W	150mVpk-pk	±5%		91.0%	≤3s
	23.1-24.0	0.01-10.00	240.0W	150mVpk-pk	±5%		91.0%	≤3s
	24.1-25.0	0.01-9.60	240.0W	150mVpk-pk	±5%		91.0%	≤3s
	25.1-26.0	0.01-9.23	240.0W	150mVpk-pk	±5%		91.0%	≤3s
	36.0-37.0	0.01-6.48	240.0W	200mVpk-pk	±5%		91.5%	≤3s
	37.1-28.0	0.01-6.31	239.8W	200mVpk-pk	±5%		91.5%	≤3s
	38.1-39.0	0.01-6.15	239.9W	200mVpk-pk	±5%		91.5%	≤3s
	39.1-40.0	0.01-6.00	240.0W	200mVpk-pk	±5%		91.5%	≤3s
	45.0-48.0	0.01-5.00	240.0W	250mVpk-pk	±5%		92.0%	≤3s
	48.1-49.0	0.01-4.89	236.6W	250mVpk-pk	±5%		92.0%	≤3s
	49.1-50.0	0.01-4.80	240.0W	250mVpk-pk	±5%		92.0%	≤3s
	50.1-51.0	0.01-4.70	239.7W	250mVpk-pk	±5%		92.0%	≤3s
	51.1-52.0	0.01-4.60	239.2W	250mVpk-pk	±5%		92.0%	≤3s
	52.1-53.0	0.01-4.53	240.0W	250mVpk-pk	±5%		92.0%	≤3s
	53.1-54.0	0.01-4.44	239.8W	250mVpk-pk	±5%		92.0%	≤3s

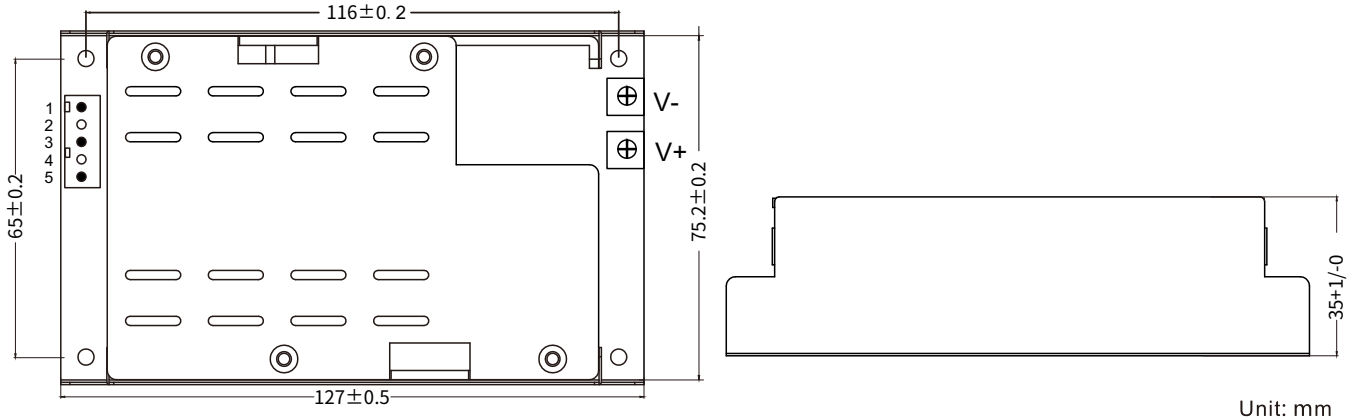
Mechanical Details

AC Input Connector :
JST B5P-VH or equivalent

Pin No.	1	3	5	2,4
Assignment	AC/L	AC/N	AC/FG	No Pin

DC Output Connector :
8*8*3*M4 or equivalent

Pin No.	V+	V-
Assignment	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

UE Electronic

Switching Power Adaptor
Open frame style

Universal 240 Watt - UES240-SPA-OP

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 (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(30℃ to 70℃ refer to derating curve)
Storage Temperature	-40℃ to 85℃
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"
Weight	450g
MTBF	>500,000hrs Telcordia_SR-332 at 25℃

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
CB	IEC60601-1	
NRTL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO.60601-1	
TÜV Mark	EN60601-1	

EMC

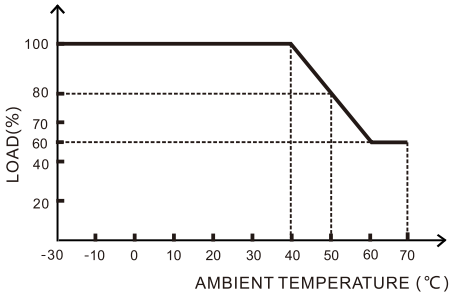
Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032
Harmonic Currents	EN61000-3-2, Class A	EN61000-3-2, Class A
Voltage Flicker	EN61000-3-3	EN61000-3-3

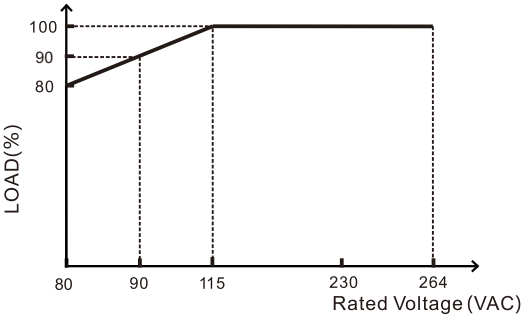
Immunity	IEC/EN60601-1-2	EN55035, CISPR 35
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m ,3V/m 80MHz - 2.7GMHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±2KV/Line-Line,±4KV/Line-Earth
Conducted Immunity	IEC61000-4-6	3Vrms, 6Vrms (0.15MHz-80MHz)
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





UE Electronic

Switching Power Supply
Open Frame Style

Universal 250 Watt - UES250-SPAZ-OP

CLASS I & II

150W CONVECTION COOLED

250W FAN COOLED

Product Features

NEW

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current: ≤ 100μA
- Efficiency up to 94%
- ≤ 0.5W standby power
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage (V) (*1)	Current at convection (A)	Rated Power (W)	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES250-XXXYYYSPAZ-OP (*3)	12.0	12.50	150.00	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	15.0	10.00	150.00	150mVpk-pk	±5%		92.0%	≤3s
	18.0	8.33	149.94	150mVpk-pk	±5%		92.0%	≤3s
	19.0	7.89	149.91	200mVpk-pk	±5%		93.0%	≤3s
	24.0	6.25	150.00	200mVpk-pk	±5%		93.0%	≤3s
	36.0	4.16	149.76	300mVpk-pk	±5%		93.0%	≤3s
	48.0	3.12	149.76	300mVpk-pk	±5%		94.0%	≤3s
	54.0	2.77	149.58	300mVpk-pk	±5%		94.0%	≤3s

Model Number	Voltage (V)	Current at 25 CFM (A)	Rated Power (W)	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES250-XXXYYYSPAZ-OPC (*4) UES250-XXXYYYSPAZ-OPTF (*5)	12.0	20.83	249.96	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	15.0	16.66	249.90	150mVpk-pk	±5%		92.0%	≤3s
	18.0	13.88	249.84	150mVpk-pk	±5%		92.0%	≤3s
	19.0	13.15	249.85	200mVpk-pk	±5%		93.0%	≤3s
	24.0	10.41	249.84	200mVpk-pk	±5%		93.0%	≤3s
	36.0	6.94	249.84	300mVpk-pk	±5%		93.0%	≤3s
	48.0	5.20	249.60	300mVpk-pk	±5%		94.0%	≤3s
	54.0	4.62	249.48	300mVpk-pk	±5%		94.0%	≤3s
Standby Power	5.0	0.15	0.75	120mVpk-pk				
FAN	12.0	0.25	3.0					

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 47uF electrolytic capacitors.
(*3)"Z" represents "1" or "2": "1" refers to the CLASS II standard, used for 2PIN input; "2" refers to the CLASS I standard, used for 3PIN input.
(*4)"-OPC" represents Enclosed type with external separate fan.
(*5)"-OPTF" represents Enclosed type with fan.

Universal 250 Watt - UES250-SPAZ-OP

Input

Input Voltage Range	80-264VAC(80-115VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	3.52 max
Inrush Current	80A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(30℃ 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) 35.3(H)mm 4x2"
Weight	280g
MTBF	>1000,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-160% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

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

EMC

Emission	Medical	ITE
Conduction (*1)	IEC/EN60601-1-2,CISPR 11	En55032, CISPR 32
Radiation (*2)	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Harmonic Currents	EN61000-3-2, Class B	EN61000-3-2, Class B
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

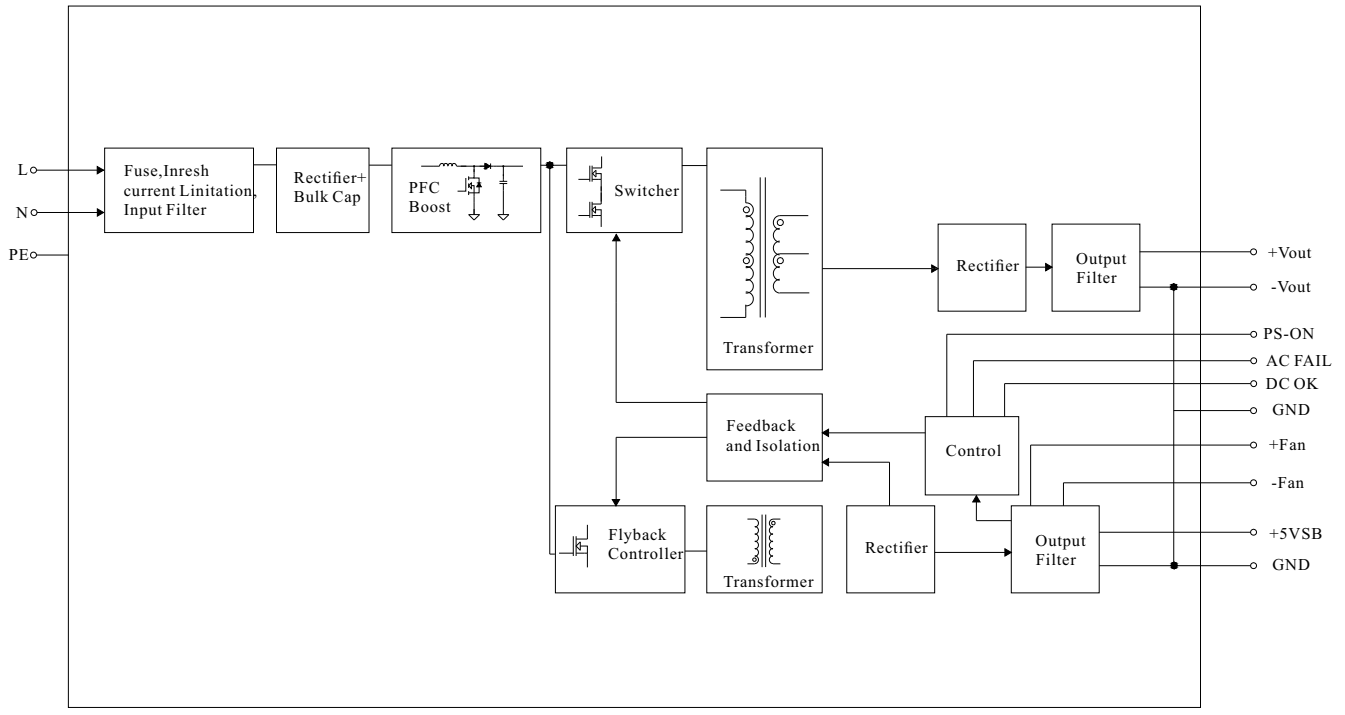
NOTE:
The power supply is considered a component which will be installed into a final equipment. All EMC tests are executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives.

Others

Dielectric Withstand Voltage	4000VAC input to output
Insulation Resistance	100M Ohms, 500VDC input to output

Notes
(*1) Class Ⅰ meets Class B,Class Ⅱ meets Class A.
(*2) Class Ⅰ meets Class A,Class Ⅱ meets Class A.

Block Diagram



PS-ON INPUT SIGNAL:
Power ON: PS-ON = "Hi" or " > 2 ~ 5V" ; Power OFF: PS-ON = "Low" or " < 0 ~ 0.5V.

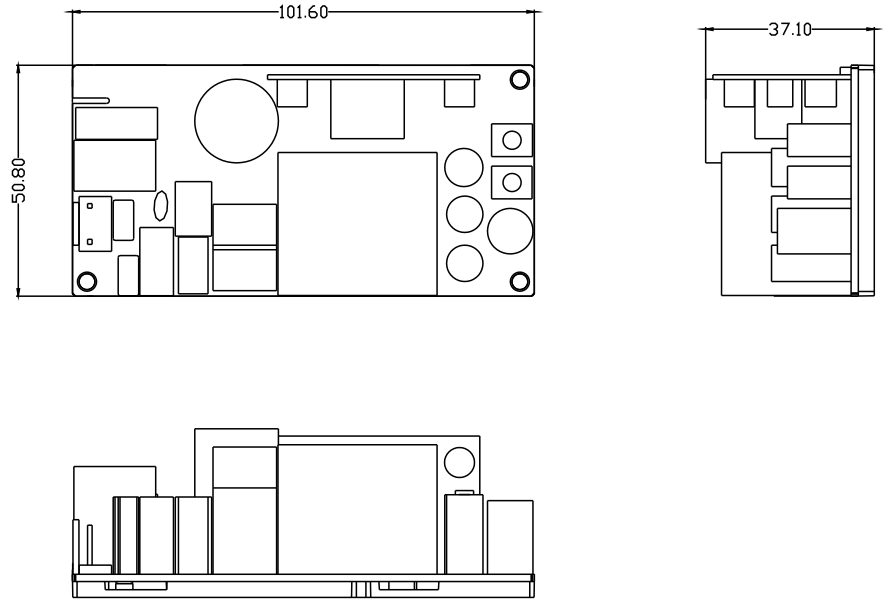
POWER GOOD / POWER FAIL:
500ms>PG>10ms ; The TTL signal goes high with 10ms to 500ms delay after power set up ;
The TTL signal goes low at least 1ms before Vo below 90% of rated value.

12V FAN SUPPLY:
12V@0.25A for driving fan ;
Tolerance -15% ~+10% at main output 20% rated current (10CFM).

5V STANDBY:
5Vsb : 5V@0.15A ;
Tolerance ±2%, ripple : 120mVp-p(max.).

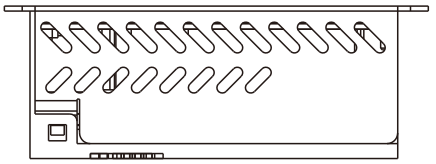
Mechanical Details

● ***UES250-XXXYYYSPAZ-OP(PCB Type)*** ***Unit: mm***

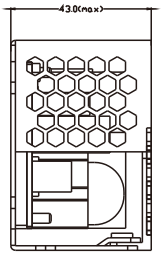


Mechanical Details

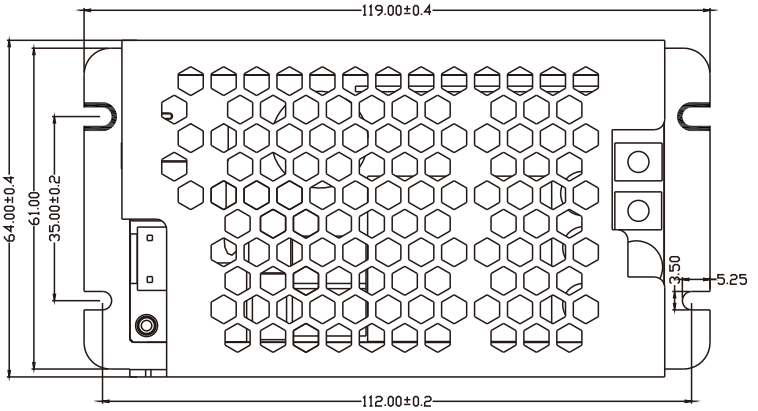
● ***UES250-XXXYYYSPAZ-OPC(Enclosed type with external separate fan)*** ***Unit: mm***



Side View



Side View



Top View

● ***UES250-XXXYYYSPAZ-OPTF(Enclosed type with fan)*** ***Unit: mm***

AC Input Connector(J1) :
JST B3P-VH or equivalent

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

DC Output Connector(Vo+,Vo-):

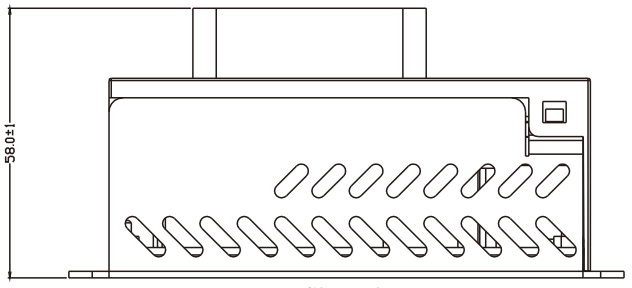
Pin No.	Vo+	Vo-
Assignment	V+	V-

Function Connector(CCON3):
TKP DH2I-2X2 or equivalen

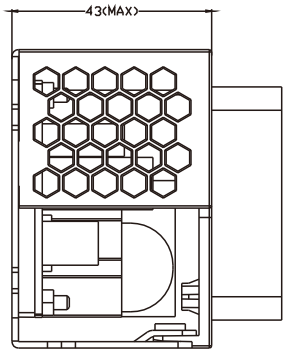
Pin No.	1	2	3	4	5	6	7	8
Assignment	+5Vsb2	SGND	AC-FALL+	Power-OK+	SGND	SGND	SGND	ON/OFF+

FAN Connector(CCN1) :
TKP 8812-2 or equivalenn

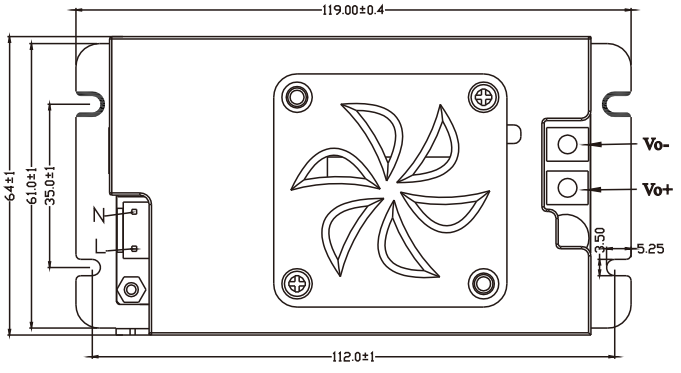
Pin No.	1	2
Assignment	FAN+	FAN-



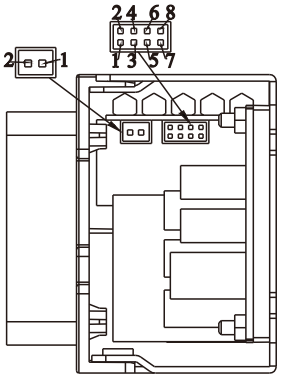
Side View



Side View



Top View



Side View

UE Electronic

Switching Power Supply
Open Frame Style

Universal 500 Watt - UES500-SPAZ-OP

320W CONVECTION COOLED

500W FAN COOLED

CLASS I & II

NEW

Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current: ≤ 100μA
- Efficiency up to 94%
- ≤ 0.5W standby power
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage (V) (*1)	Current at convection (A)	Rated Power (W)	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES500-XXXYYYYSPAZ-OP (*3)	12.0	26.66	319.92	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	15.0	21.33	319.95	150mVpk-pk	±5%		92.0%	≤3s
	18.0	17.77	319.86	150mVpk-pk	±5%		92.0%	≤3s
	19.0	16.84	319.96	200mVpk-pk	±5%		93.0%	≤3s
	24.0	13.33	319.92	200mVpk-pk	±5%		93.0%	≤3s
	36.0	8.88	319.68	300mVpk-pk	±5%		93.0%	≤3s
	48.0	6.66	319.68	300mVpk-pk	±5%		94.0%	≤3s
	54.0	5.92	319.68	300mVpk-pk	±5%		94.0%	≤3s

Model Number	Voltage (V)	Current at 25 CFM (A)	Rated Power (W)	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES500-XXXYYYYSPAZ-OPC (*4) UES500-XXXYYYYSPAZ-OPTF (*5) UES500-XXXYYYYSPAZ-OPSF (*6)	12.0	41.66	499.92	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	15.0	33.33	499.95	150mVpk-pk	±5%		92.0%	≤3s
	18.0	27.77	499.86	150mVpk-pk	±5%		92.0%	≤3s
	19.0	26.31	499.89	200mVpk-pk	±5%		93.0%	≤3s
	24.0	20.83	499.92	200mVpk-pk	±5%		93.0%	≤3s
	36.0	13.88	499.68	300mVpk-pk	±5%		93.0%	≤3s
	48.0	10.41	499.68	300mVpk-pk	±5%		94.0%	≤3s
	54.0	9.25	499.50	300mVpk-pk	±5%		94.0%	≤3s
Standby Power	5.0	0.60	3.0	120mVpk-pk				
FAN	12.0	0.50	6.0					

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 47uF electrolytic capacitors.
(*3)"Z" represents "1" or "2": "1" refers to the CLASS II standard, used for 2PIN input; "2" refers to the CLASS I standard, used for 3PIN input.
(*4)"-OPC" represents Enclosed type with external separate fan.
(*5)"-OPTF" represents Enclosed type with fan on the top.
(*6)"-OPSF" represents Enclosed type with fan on the side.

Universal 500 Watt - UES500-SPAZ-OP

Input

Input Voltage Range	80-264VAC(80-115VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	6.3A max
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(30℃ 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	127.0(L) 76.2(W) 41.0(H)mm 5x3”
Weight	480g
MTBF	>1000,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-160% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

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

EMC

Emission	Medical	ITE
Conduction (*1)	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation (*2)	IEC/EN60601-1-2,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/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

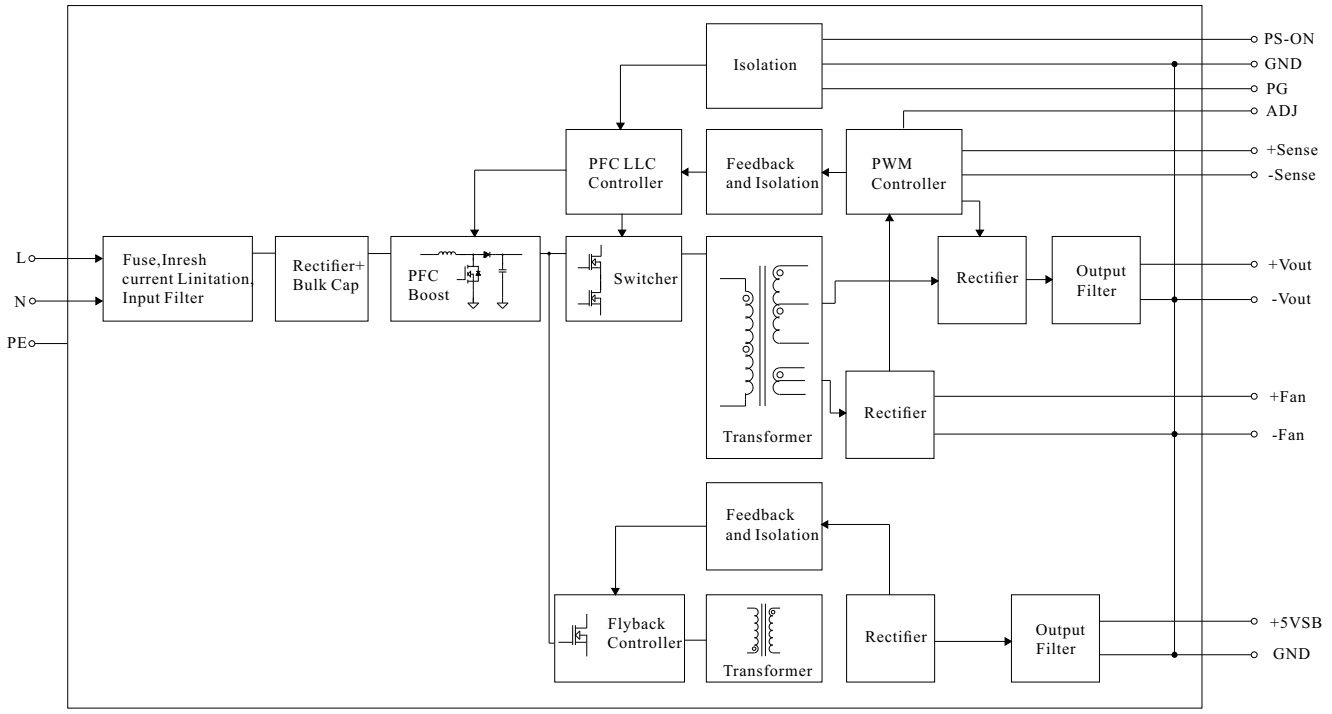
NOTE:
The power supply is considered a component which will be installed into a final equipment. All EMC tests are executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives.

Others

Dielectric Withstand Voltage	4000VAC input to output
Insulation Resistance	100M Ohms, 500VDC input to output

Notes
(*1) Class Ⅰ meets Class B,Class Ⅱ meets Class A.
(*2) Class Ⅰ meets Class A,Class Ⅱ meets Class A.

Block Diagram



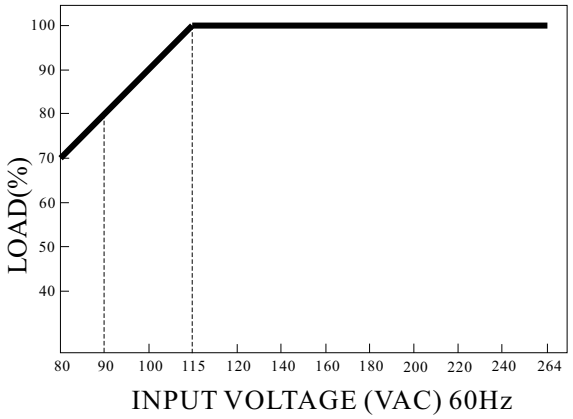
PS-ON INPUT SIGNAL:
Power ON: PS-ON = "Hi" or " > 2 ~ 5V" ; Power OFF: PS-ON = "Low" or " < 0 ~ 0.5V.

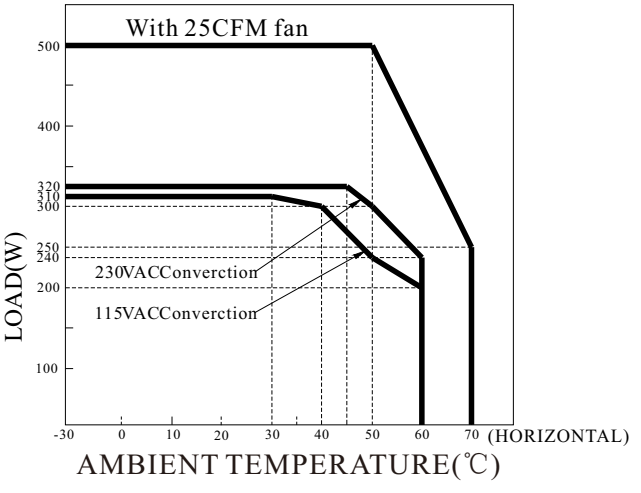
POWER GOOD / POWER FAIL:
500ms>PG>10ms ; The TTL signal goes high with 10ms to 500ms delay after power set up ;
The TTL signal goes low at least 1ms before Vo below 90% of rated value.

12V FAN SUPPLY:
12V@0.5A for driving fan ;
Tolerance -15% ~+10% at main output 20% rated current (25CFM).

5V STANDBY:
5Vsb : 5V@0.6A ;
Tolerance ±2%, ripple : 120mVp-p(max.).

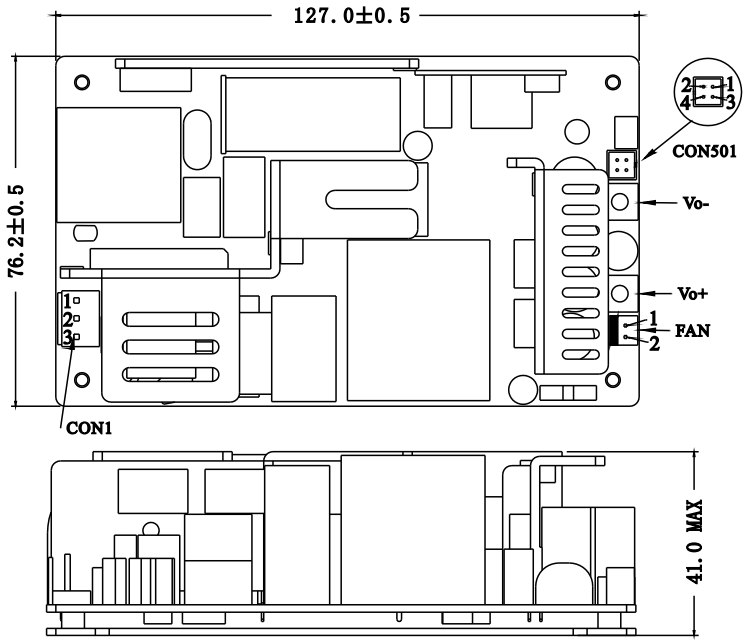
Derating Curve





Mechanical Details

● ***UES500-XXXYYYYSPAZ-OP(PCB Type) Unit: mm***



AC Input Connector(CON1) :
JST B3P-VH or equivalent

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

DC Output Connector(Vo+,Vo-):

Pin No.	Vo+	Vo-
Assignment	V+	V-

Function Connector(CON501):
TKP DH2I-2X2 or equivalen

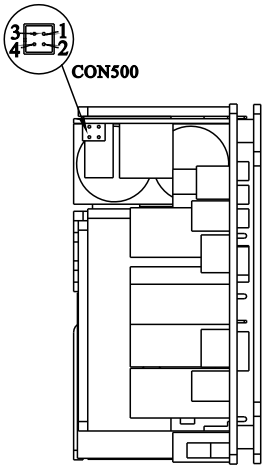
Pin No.	1	2	3	4
Assignment	RS-	RS+	GND	PG

Function Connector(CON500):
TKP DH2L-2X2 or equivalen

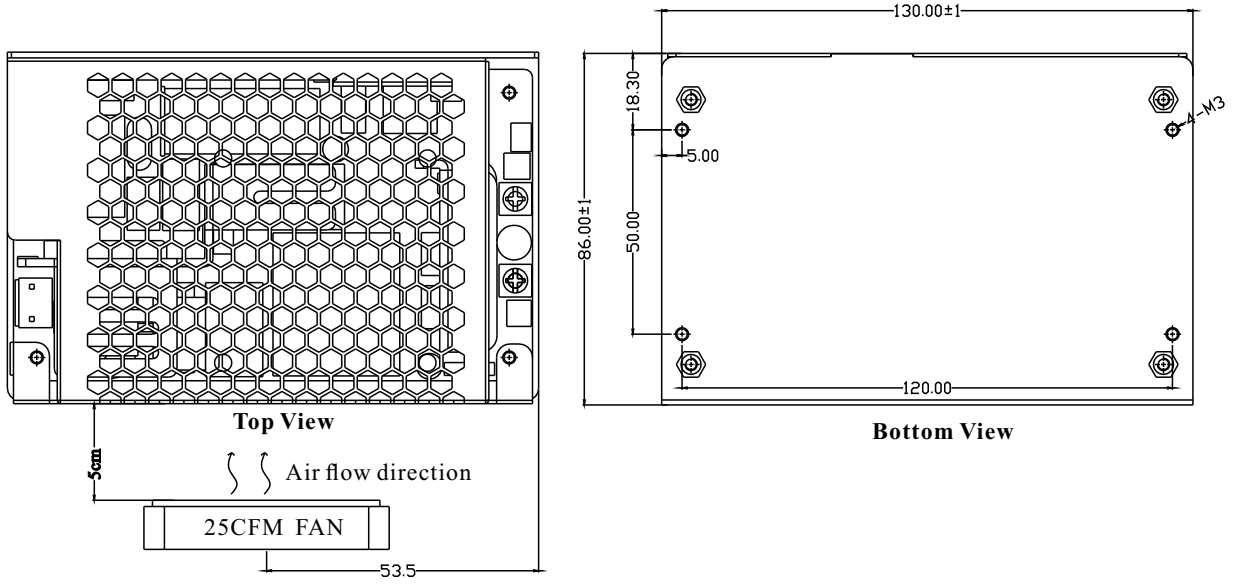
Pin No.	1	2,4	3
Assignment	+5Vsb	GND	PS-ON

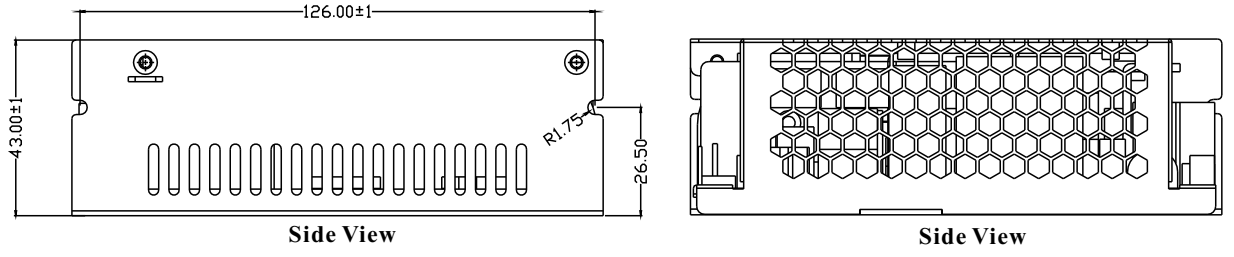
FAN Connector(FAN) :
TKP 8812-2 or equivalenn

Pin No.	1	2
Assignment	FAN-	FAN+



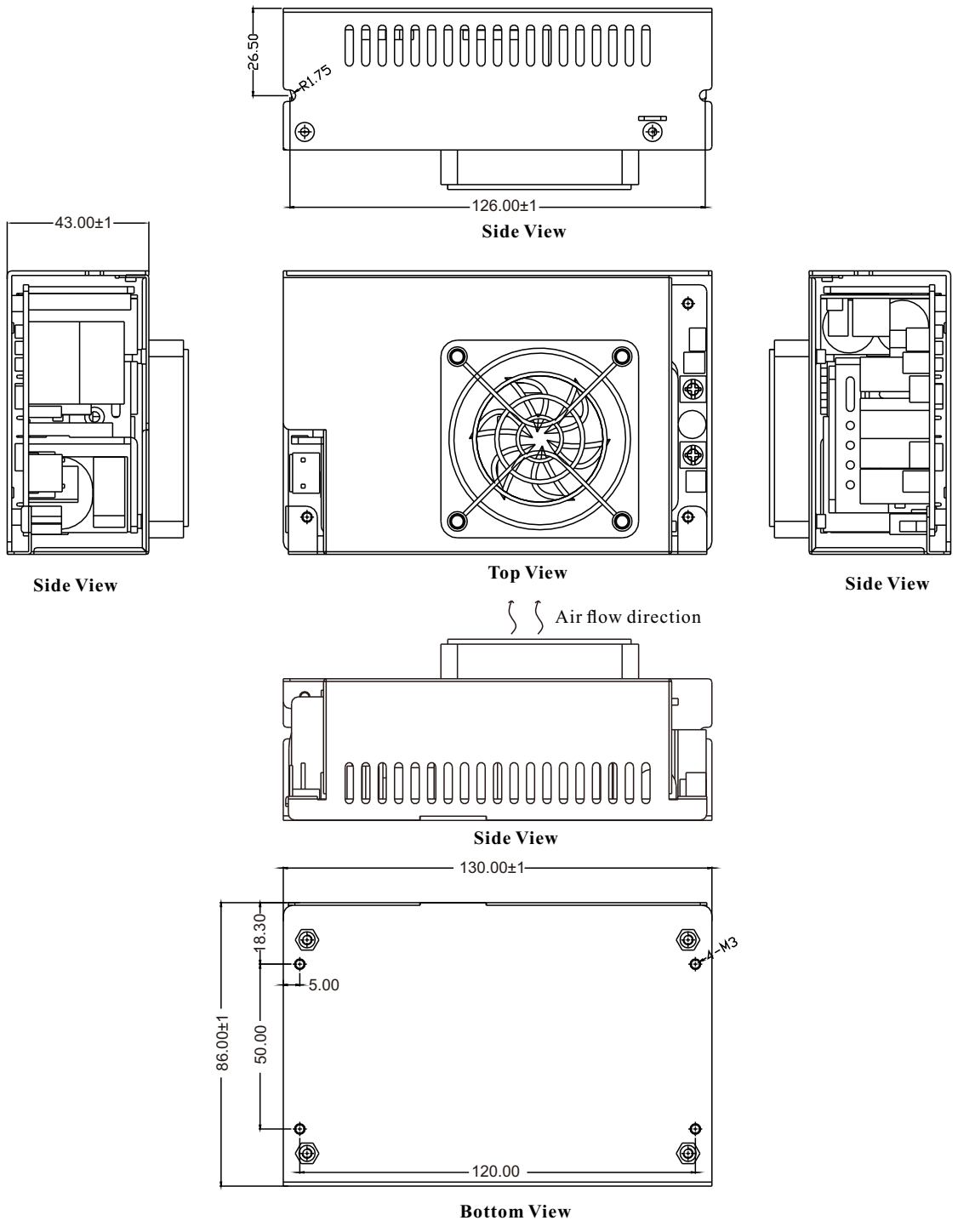
● ***UES500-XXXYYYYSPAZ-OPC(Enclosed type with external separate fan)***





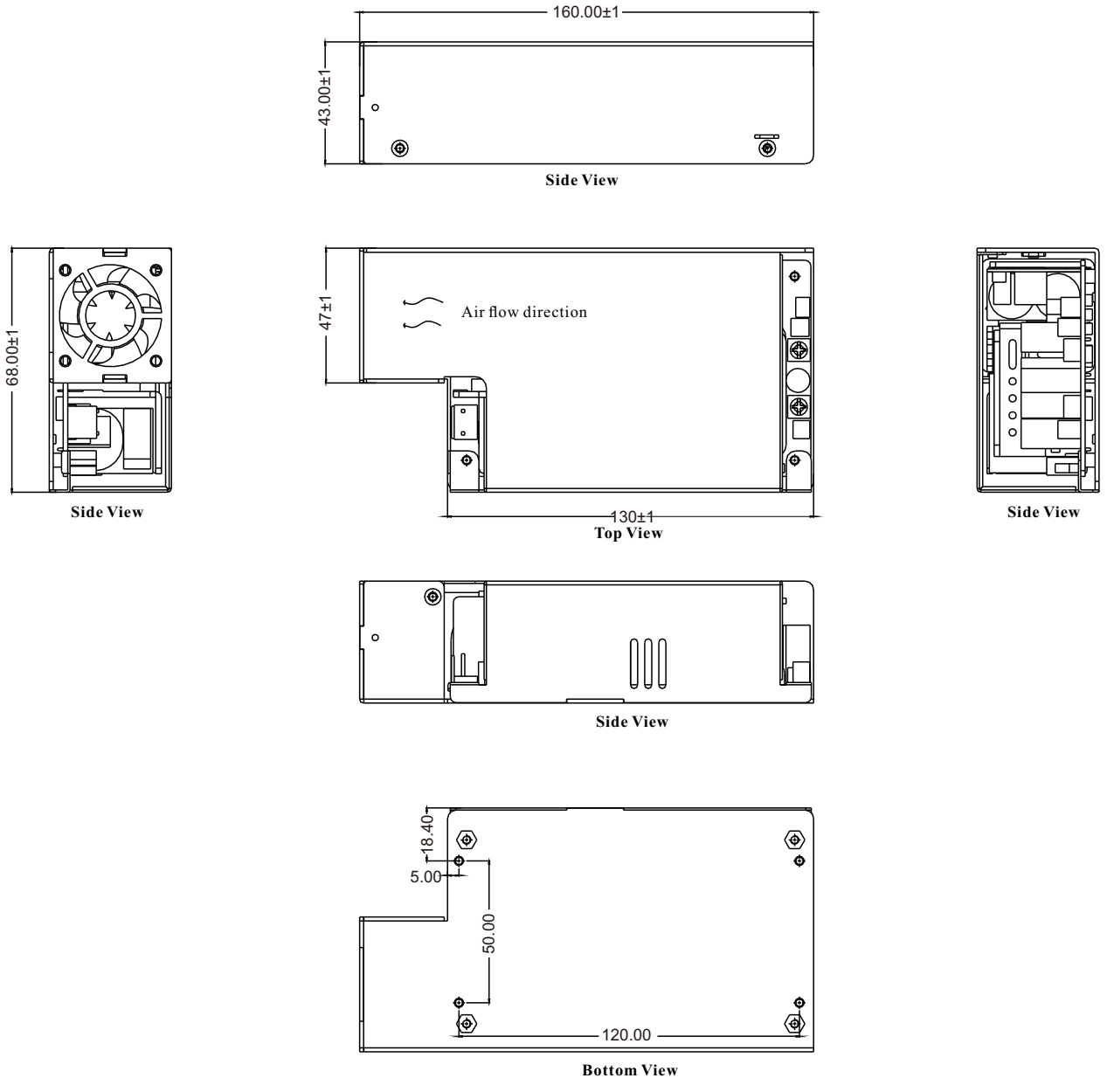
Mechanical Details

● ***UES500-XXXYYYYSPAZ-OPTF(Enclosed type with fan on the top)*** ***Unit: mm***



Mechanical Details

● ***UES500-XXXYYYYSPAZ-OPSF (Enclosed type with fan on the side)*** ***Unit: mm***



UE Electronic

Switching Power Adaptor
Wall plug style

Universal 22.5 Watt - UES23LZ-SPC Series

CB TÜV
IP22 Class II VI

Product Features

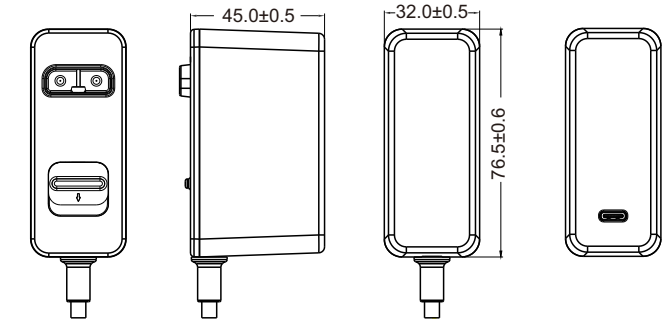
- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V/9V/12V outputs, up to 22.5W
- Up to 5,000m operating altitude
- Optional fixed plug / interchangeable plug design
- USB port / fixed cable design
- Meet USB PD3.0&QC3.0 fast charge agreement

Models & Parameters

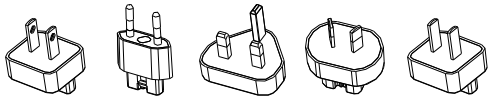
Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES23LZ-SPC	5.0	0.01-3.00	15.00W	300mVpk-pk	±10%	Line: ±1% Load: ±5%	81.84%	≤3s
	9.0	0.01-2.50	22.50W	300mVpk-pk	±10%		86.52%	≤3s
	12.0	0.01-1.87	22.44W	300mVpk-pk	±10%		86.51%	≤3s

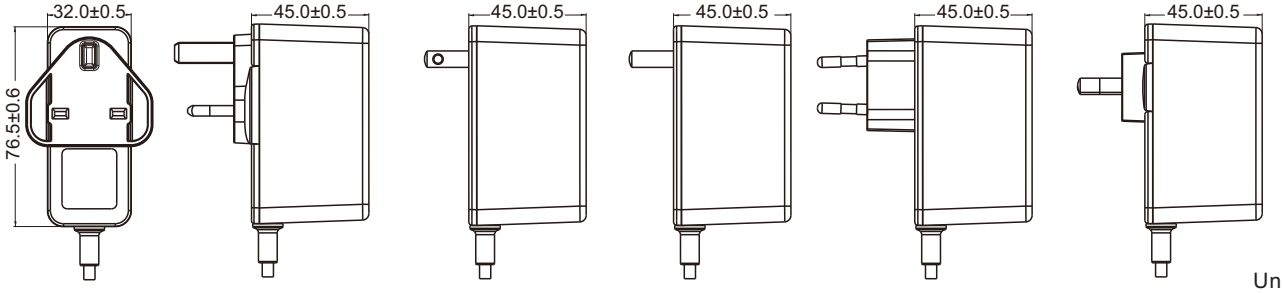
Model encoding:
Replace "Z" with "B" for fixed UK AC plug and fixed DC cable
Replace "Z" with "BU" for fixed UK AC plug and USB
Replace "Z" with "CP" for changeable AC plug and fixed DC cable
Replace "Z" with "CPU" for changeable AC plug and USB

Mechanical Details



Interchangeable AC Plug Options





Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	0.8A at 80VAC
Inrush Current	80A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

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

General

Dimensions	76.5(L) 32.0(W) 45.0(H)mm
Weight	154g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-150% rated output power, auto recovery
Over Voltage	105-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	
TUV-SUD/Mark	EN60601-1	

EMC

Emission	Medical		ITE
Conduction	IEC/EN60601-1-2,CISPR 11		EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±1KV line to line (DM)	
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

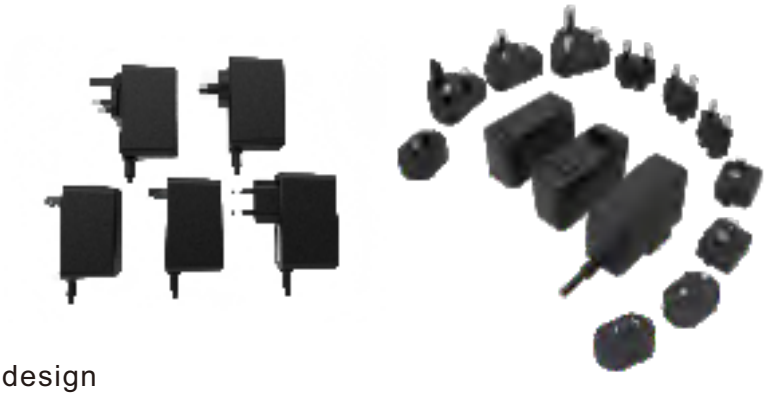
UE Electronic

Switching Power charger
Wall plug style

Universal 33 Watts - UES33LZ-SPC

IP22 Class II

Product Features



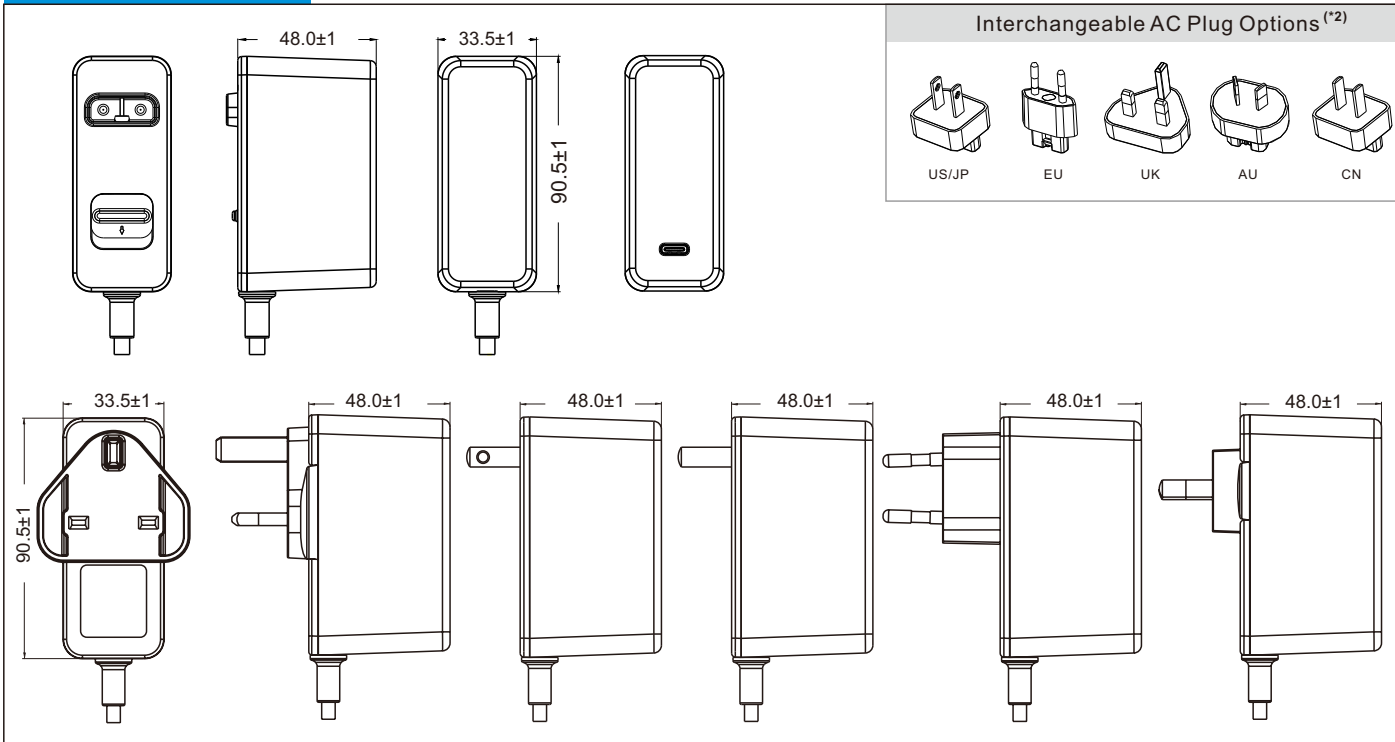
- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.1W standby power
- 5V/9V/12V/15V/20V outputs, up to 33W
- Up to 5,000m operating altitude
- Optional fixed plug / interchangeable plug design
- USB port / fixed cable design
- Meet USB PD3.0&QC3.0&QC2.0 fast charge agreement

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES33LZ-SPC	5.0	0.01-3.00	15.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	81.39%	≤3s
	9.0	0.01-3.00	27.00W	200mVpk-pk	±5%		86.62%	≤3s
	12.0	0.01-2.50	30.00W	200mVpk-pk	±5%		86.95%	≤3s
	15.0	0.01-2.20	33.00W	200mVpk-pk	±5%		87.20%	≤3s
	20.0	0.01-1.65	33.00W	200mVpk-pk	±5%		87.20%	≤3s

Model encoding:
Replace "Z" with "B" for fixed UK AC plug and fixed DC cable
Replace "Z" with "BU" for fixed UK AC plug and USB
Replace "Z" with "CP" for changeable AC plug and fixed DC cable
Replace "Z" with "CPU" for changeable AC plug and USB

Mechanical Details



Unit: mm

Notes
(*1 , 2) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power charger
Wall plug style

Universal 33 Watts - UES33LZ-SPC

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	0.9A at 80VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

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

General

Dimensions	90.5(L) 33.5(W) 48.0(H)mm
Weight	160g
MTBF	>60,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-140% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1,IEC60601-1-11	IEC62368-1
TüV-SUD/Mark	EN60601-1,EN60601-1-11	-
NRTL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	-
CE	-	EN62368-1
FCC	-	FCC PART 15
UL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	UL62368-1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±2.5KV line to line ,±4KV line to GND
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

UE Electronic

Switching Power charger
Wall plug style

Universal 45 Watt - UES45LCP-SPC

Class II

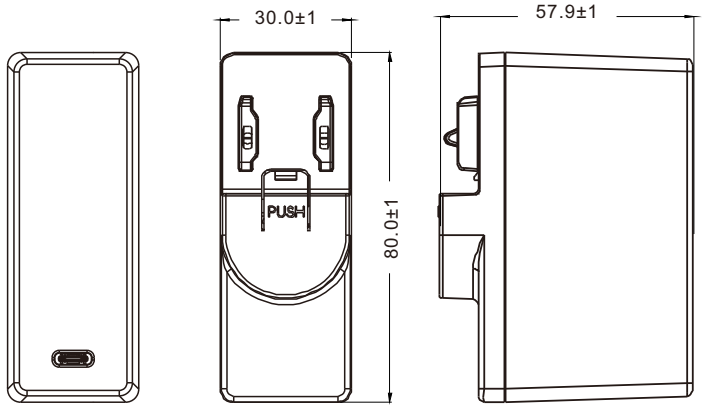
Product Features

- Meets medical & I.T.E. safety
- 2 MOPP input to output isolation
- Touch current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.1W standby power
- Up to 5,000m operating altitude
- Meet USB PD3.0,QC3.0,QC2.0,PPS fast charge agreement
- USB port / fixed cable design

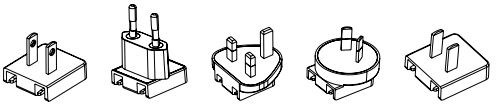
Models & Ratings

Model Number	Voltage(*1)	Current	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES45LCP-SPC UES45LCP1-SPC	5.0	0.01-3.00	15.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	81.38%	≤3s
	9.0	0.01-3.00	27.00W	200mVpk-pk	±5%		86.62%	≤3s
	12.0	0.01-3.00	36.00W	200mVpk-pk	±5%		87.40%	≤3s
	15.0	0.01-3.00	45.00W	200mVpk-pk	±5%		87.72%	≤3s
	20.0	0.01-2.25	45.00W	200mVpk-pk	±5%		87.72%	≤3s

Mechanical Details



Interchangeable AC Plug Options



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.

UE Electronic

Switching Power charger
Wall plug style

Universal 45 Watt - UES45LCP-SPC

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.3A at 90VAC
Inrush Current	130A max at 240VAC cold start
Touch Leakage Current (max)	≤ 100μA at 264VAC

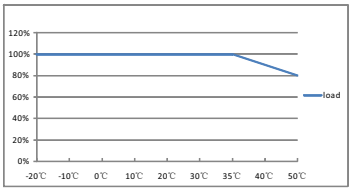
Environmental

Operating Temperature	-20℃ to 50℃(Refer to the derating curve diagram)
Storage Temperature	-30℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	80.0(L) 30.0(W) 57.9(H)mm
Weight	125g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃
Isolation	4000VAC Input to Output

Derating curve diagram



Protection

Overload	105-130% rated output power, auto recovery
Over Voltage	Min 120% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical(Meet)	ITE
CB	IEC60601-1:2005/AmD2:2020	IEC62368-1
UL	ANSI/AAMI ES60601-1:2005/AmD2:2021 CAN/CSA C22.2 NO. 60601-1	UL62368-1 CAN/CSA C22.2 NO. 62368-1
TüV SuD/Mark	EN60601-1:2006/A2:2021	-
RCM	-	AS/NZS 62368.1
CE	-	EN62368
CCC	-	GB4943.1
PSE	-	J62368
NOM	-	NOM-001-SCFI-2018

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±1KV line to line (different mode)
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	100M Ohms, 500VDC input to output

UE Electronic

Switching Power Charger
Desktop style/Wall plug style

Universal 60 Watt - UES60D1-200300SPC
Universal 60 Watt - UES60LCP-200300SPC

Class I I

Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.15W standby power
- 5V-20V outputs, up to 60W
- Up to 5,000m operating altitude
- Support online programming
- Meet USB PD3.0 fast charge agreement

UES60D1-200300SPC

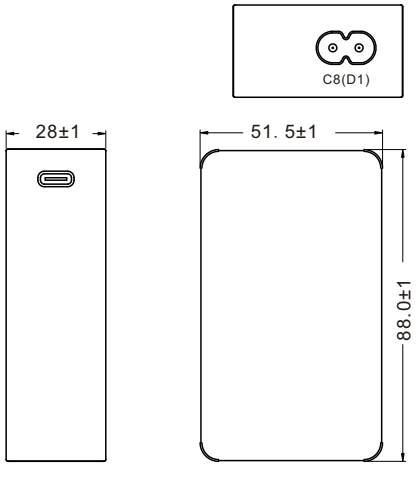
UES60LCP-200300SPC

Models & Parameters

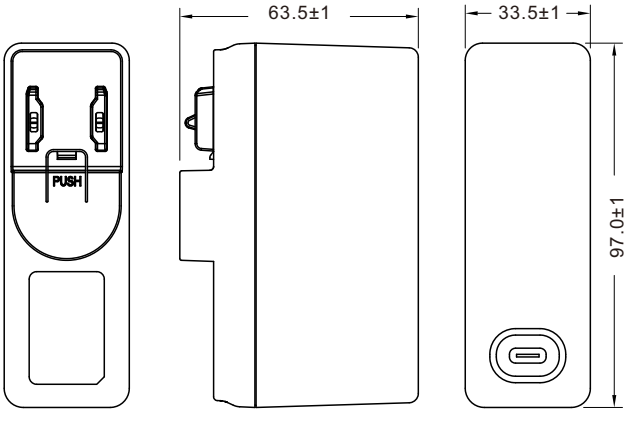
Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES60D1-200300SPC UES60LCP-200300SPC	5.0	0.01-3.00	15.00W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	82.0%	≤3s
	9.0	0.01-3.00	27.00W	150mVpk-pk	±5%		86.8%	≤3s
	12.0	0.01-3.00	36.00W	150mVpk-pk	±5%		87.5%	≤3s
	15.0	0.01-3.00	45.00W	150mVpk-pk	±5%		88.0%	≤3s
	20.0	0.01-3.00	60.00W	150mVpk-pk	±5%		89.0%	≤3s

Mechanical Details

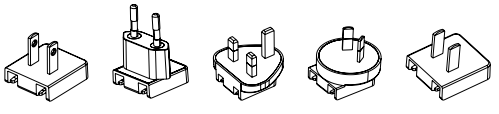
UES60D1-200300SPC



UES60LCP-200300SPC



Interchangeable AC Plug Options



DC Connector: USB TYPE-C

Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Charger
Desktop style/Wall plug style

Universal 60 Watt - UES60D1-200300SPC
Universal 60 Watt - UES60LCP-200300SPC

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.3A 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	-40℃ to 80℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	88.0(L) 51.5(W) 28.0(H)mm(UES60D) 97.0(L) 63.5(W) 33.5(H)mm(UES60LCP)
Weight	175g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-140% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	-
TUV-SUD/Mark	EN60601-1	-
TUV-SUD/GS	-	EN62368-1
CCC	-	GB4943.1
PSE	-	J62368-1
NRTL	-	UL62368-1
RCM	-	AS/NZS62368.1
CE	-	EN62368-1
FCC	-	FCC PART 15
BSMI	-	CNS14336-1
NOM	-	NOM-001-SCFI-2018
PSB	-	IEC62368-1
BIS	-	IEC60950-1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/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 to line ,±4KV line to GND
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

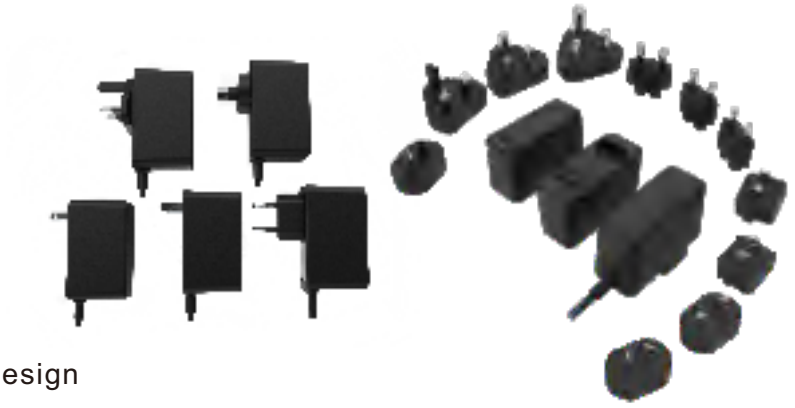
UE Electronic

Switching Power charger
Wall plug style

Universal 65 Watt - UES65LZ2-SPC Series

IP22 Class II

Product Features



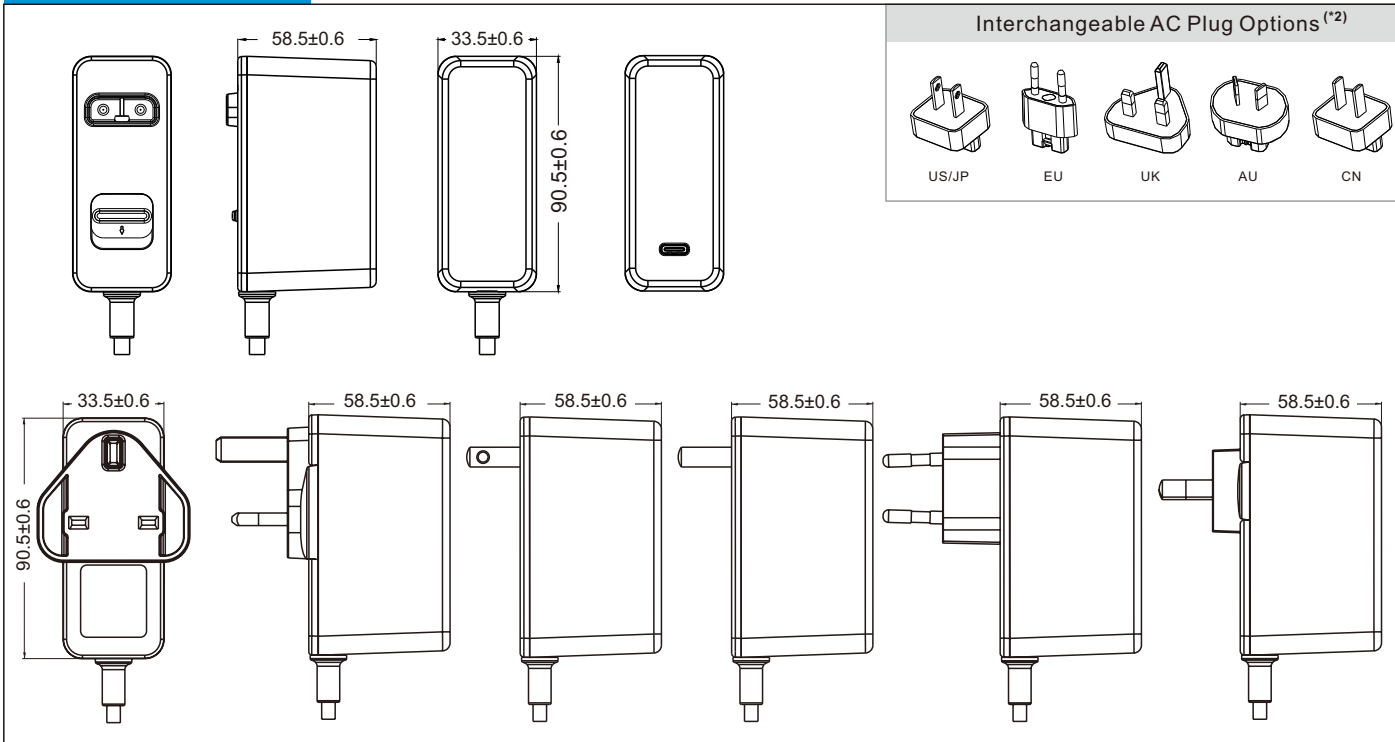
- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.21W standby power
- 5V/9V/12V/15V/20V outputs, up to 65W
- Up to 5,000m operating altitude
- Optional fixed plug / interchangeable plug design
- USB port / fixed cable design
- Meet USB PD3.0&QC3.0&QC2.0 fast charge agreement

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES65LZ2-SPC	5.0	0.01-3.00	15.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	82.0%	≤3s
	9.0	0.01-3.00	27.00W	200mVpk-pk	±5%		86.8%	≤3s
	12.0	0.01-3.00	36.00W	200mVpk-pk	±5%		87.5%	≤3s
	15.0	0.01-3.00	45.00W	200mVpk-pk	±5%		88.0%	≤3s
	20.0	0.01-3.25	65.00W	200mVpk-pk	±5%		88.0%	≤3s

Model encoding:
Replace "Z" with "B" for fixed UK AC plug and fixed DC cable
Replace "Z" with "BU" for fixed UK AC plug and USB
Replace "Z" with "CP" for changeable AC plug and fixed DC cable
Replace "Z" with "CPU" for changeable AC plug and USB

Mechanical Details



Unit: mm

Notes
(*1 , 2) Other options are available, please contact our sales representative for details.

Universal 65 Watt - UES65LZ2-SPC Series

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	2A at 80VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

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

General

Dimensions	90.5(L) 33.5(W) 58.5(H)mm
Weight	220g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-140% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1,IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1,ES60601-1-11 CAN/CSA-C22.2 NO. 60601-1-11	UL62368-1
TUV-SUD/Mark	EN60601-1,EN60601-1-11	-
TUV-SUD/GS	-	EN62368-1
CCC	-	GB4943.1
CE	-	EN62368-1
FCC	-	FCC PART 15
EMC	EN60601-1	-

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±1KV line to line ,±2KV line to GND
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

UE Electronic

Switching Power charger
Wall plug style

Universal 100 Watt - UES100LCP2-SPC Series

IP42 Class II

Product Features

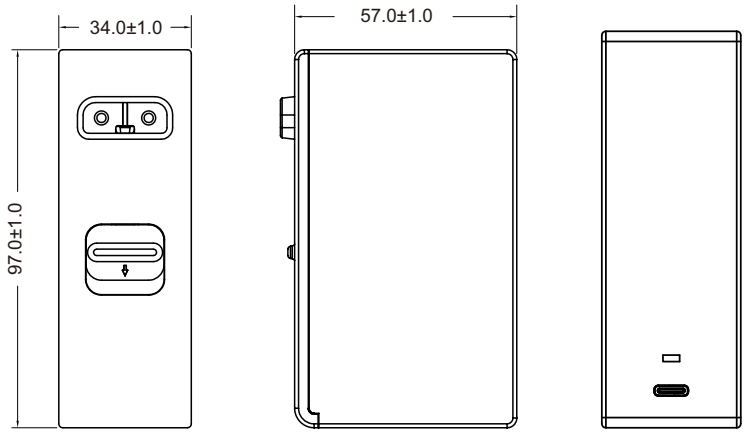
GaN

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤0.15W standby power
- 5V/9V/12V/15V/20V outputs, up to 100W
- Up to 5,000m operating altitude
- Interchangeable plug design
- Meet USB PD3.0&PPS&QC3.0&QC2.0 fast charge agreement

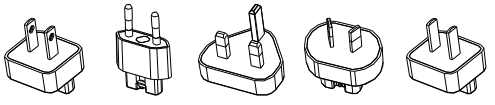
Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES100LCP2-SPC	5.0	0.01-3.00	15.00W	200mVpk-pk	±5%	Line: ±2% Load: ±5%	82.0%	≤3s
	9.0	0.01-3.00	27.00W	200mVpk-pk	±5%		86.8%	≤3s
	12.0	0.01-3.00	36.00W	200mVpk-pk	±5%		87.5%	≤3s
	15.0	0.01-3.00	45.00W	200mVpk-pk	±5%		88.0%	≤3s
	20.0	0.01-5.00	100.0W	250mVpk-pk	±5%		89.0%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*2)



Unit: mm

Notes
(*1 , 2) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power charger
Wall plug style

Universal 100 Watt - UES100LCP2-SPC Series

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	1.8A at 80VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

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

General

Dimensions	97.0(L) 34.0(W) 57.0(H)mm
Weight	280g±10g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-140% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Meet

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1/IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1 CAN/CSA C22.2 NO.62368-1
TüV-SUD/Mark	EN60601-1/60601-1-11	EN62368-1
CE	-	EN62368-1
FCC	-	FCC PART 15
CCC		GB4943.1
PSE		J62368-1
RCM		AS/NZS62368.1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±1KV line to line ,±2KV line to GND
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	100M Ohms, 500VDC input to output

UE Electronic

Switching Power charger
Desktop style

Universal 100 Watts - UES100B-SPCZ
Universal 100 Watts - UES100C-SPCZ

IP42 Class II

Product Features

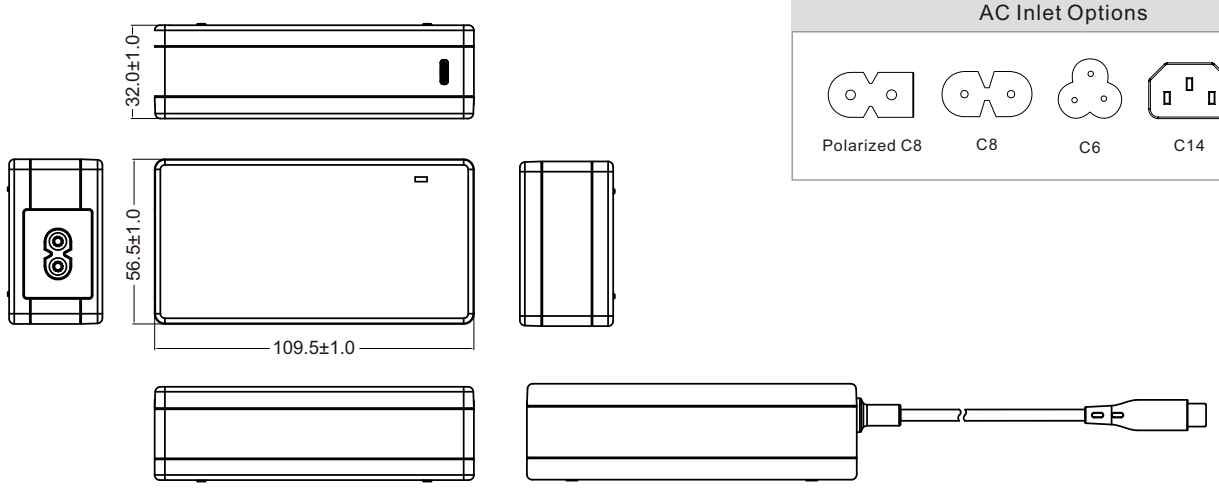
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.15W standby power
- 5V/9V/12V/15V/20V outputs, up to 100W
- Up to 5,000m operating altitude
- USB port / fixed cable design
- Meet USB PD3.0&PPS&QC3.0&QC2.0 fast charge agreement

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES100B-SPCZ UES100C-SPCZ	5.0	0.01-3.00	15.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	82.0%	≤3s
	9.0	0.01-3.00	27.00W	200mVpk-pk	±5%		86.8%	≤3s
	12.0	0.01-3.00	36.00W	200mVpk-pk	±5%		87.5%	≤3s
	15.0	0.01-3.00	45.00W	200mVpk-pk	±5%		88.0%	≤3s
	20.0	0.01-5.00	100.00W	250mVpk-pk	±5%		89.0%	≤3s

Model encoding:
Replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I), "4" for C18 (Class II) AC inlets
UES100B-SPCZ with Output terminal Type-C , UES100C-SPCZ with DC cable

Mechanical Details



AC Inlet Options

Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power charger
Desktop style

Universal 100 Watts - UES100B-SPCZ
Universal 100 Watts - UES100C-SPCZ

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	1.5A max at 80VAC
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

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

General

Dimensions	109.5(L) 56.5(W) 32(H)mm
Weight	300g±10g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-140% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Meet

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1/IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1 CAN/CSA C22.2 NO.62368-1
TüV-SUD/Mark	EN60601-1/60601-1-11	EN62368-1
CE	-	EN62368-1
FCC	-	FCC PART 15
CCC		GB4943.1
PSE		J62368-1
RCM		AS/NZS62368.1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2	EN55035, CISPR 35
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	3V/m 80MHz - 2.7GMHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±1KV line to Neutral ,±1KV line/Neutral to GND
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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 140 Watts - UES140AZ-SPC
Universal 140 Watts - UES140BZ-SPC

IP42 Class I & II

Product Features

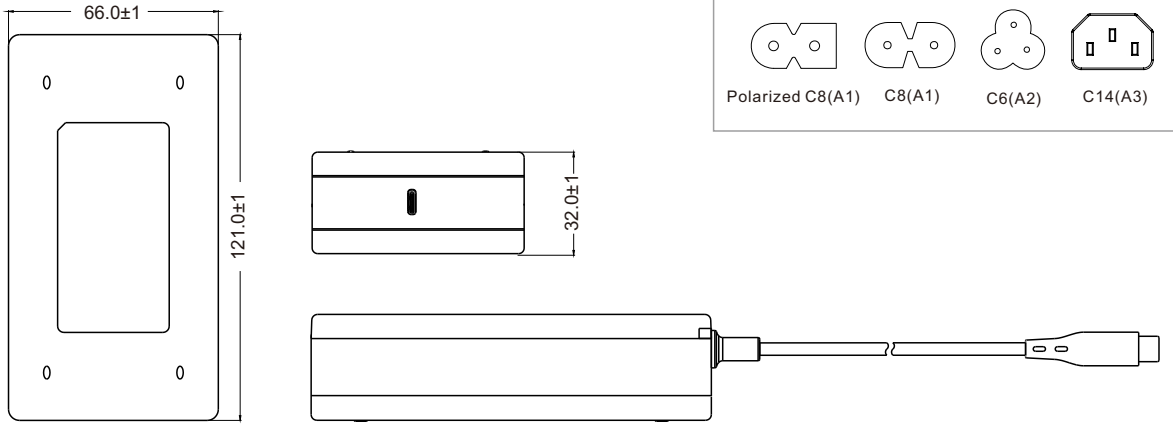
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.15W standby power
- 5V/9V/12V/15V/20V/28V outputs, up to 140W
- Up to 5,000m operating altitude
- Meet USB PD3.1&PD3.0&QC4.0+&QC3.0&QC2.0 fast charge agreement
- USB port / fixed cable design

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES140AZ-SPC UES140BZ-SPC	5.0	0.01-3.00	15.00W	300mVpk-pk	±5%	Line: ±1% Load: ±5%	82.0%	≤3s
	9.0	0.01-3.00	27.00W	300mVpk-pk	±5%		86.8%	≤3s
	12.0	0.01-3.00	36.00W	300mVpk-pk	±5%		87.5%	≤3s
	15.0	0.01-3.00	45.00W	300mVpk-pk	±5%		88.0%	≤3s
	20.0	0.01-5.00	100.00W	300mVpk-pk	±5%		90.0%	≤3s
	28.0	0.01-5.00	140.00W	300mVpk-pk	±5%		92.0%	≤3s

Model encoding:
Replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I), "4" for C18 (Class II) AC inlets
UES140AZ-SPC with Output terminal Type-C , UES140BZ-SPC with DC cable

Mechanical Details



AC Inlet Options

Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power charger
Desktop style

Universal 140 Watts - UES140AZ-SPC
Universal 140 Watts - UES140BZ-SPC

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	2.5A at 90VAC
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

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

General

Dimensions	121.0(L) 66.0(W) 32.0(H)mm
Weight	340g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-140% rated output power, auto recovery
Short Circuit	Trip and restart (hiccup mode)

Safety Meet

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1/IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1 CAN/CSA C22.2 NO.62368-1
TüV-SUD/Mark	EN60601-1/60601-1-11	EN62368-1
CE	-	EN62368-1
FCC	-	FCC PART 15
CCC		GB4943.1
PSE		J62368-1
RCM		AS/NZS62368.1
KC		K62368-1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2	EN55035, CISPR 35
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	3V/m 80MHz - 2.7GMHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±1KV line to Neutral ,±1KV line/Neutral to GND
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

UE Electronic

Switching Power charger
Desktop style

Universal 240 Watts - UES240E-SPCZ
Universal 240 Watts - UES240F-SPCZ

I P42 Class I & II Ⓥ

Product Features

GaN NEW

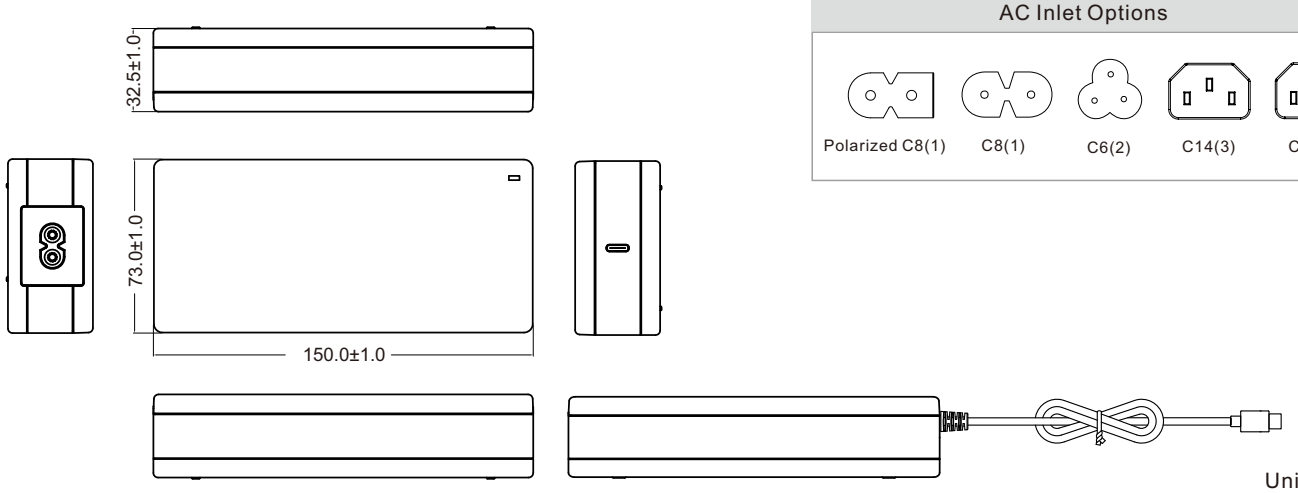
- Meets medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VII
- ≤ 0.15W standby power
- 5V/9V/12V/15V/20V/28V/36V/48V outputs, up to 240W
- Up to 5,000m operating altitude
- Meet USB PD3.2&AVS&PPS&QC3.0 fast charge agreement
- USB port /fixed cable design

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES240E-SPCZ UES240F-SPCZ	5.0	0.01-3.00	15.00W	250mVpk-pk	±5%	Line: ±2% Load: ±5%	82.0%	≤3s
	9.0	0.01-3.00	27.00W	250mVpk-pk	±5%		87.3%	≤3s
	12.0	0.01-3.00	36.00W	250mVpk-pk	±5%		88.3%	≤3s
	15.0	0.01-3.00	45.00W	250mVpk-pk	±5%		88.9%	≤3s
	20.0	0.01-5.00	100.00W	300mVpk-pk	±5%		89.5%	≤3s
	28.0	0.01-5.00	140.00W	350mVpk-pk	±5%		90.0%	≤3s
	36.0	0.01-5.00	180.00W	350mVpk-pk	±5%		91.0%	≤3s
	48.0	0.01-5.00	240.00W	400mVpk-pk	±5%		91.5%	≤3s

Model encoding:
Replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I), "4" for C18 (Class II) AC inlets
UES240E-SPCZ with output terminal Type-C, UES240F-SPCZ with DC cable

Mechanical Details



AC Inlet Options

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power charger
Desktop style

Universal 240 Watts - UES240E-SPCZ
Universal 240 Watts - UES240F-SPCZ

Input

Input Voltage Range	90-264VAC(Class I);80-264VAC(Class II)
Frequency Range	47-63Hz
Input Current	4.0A max at 80VAC
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

Operating Temperature	-10℃ 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	150.0(L) 73.0(W) 32.5(H)mm
Weight	650g±15g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-140% rated output power, auto recovery
Over Voltage	110-130% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Meet

Safety Agency / Mark	Medical(meet)	ITE(meet)
CB	IEC60601-1/IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1 CAN/CSA C22.2 NO.62368-1
TüV-SUD/Mark	EN60601-1/60601-1-11	-
RCM	-	AS/NZS 62368
CE	-	EN62368
CCC	-	GB4943.1
CQC	GB9706	-
FCC	-	FCC PART 15
KC	-	K62368
PSE	-	J62368

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2		EN55035, CISPR 35
ESD	IEC61000-4-2	±15KV air, ±8KV contact	
Radiated Immunity	IEC61000-4-3	3V/m 80MHz - 2.7GMHz	
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports	
Surge	IEC61000-4-5	±2KV line to Neutral ,±4KV line/Neutral to GND	
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	100M Ohms, 500VDC input to output

UE Electronic

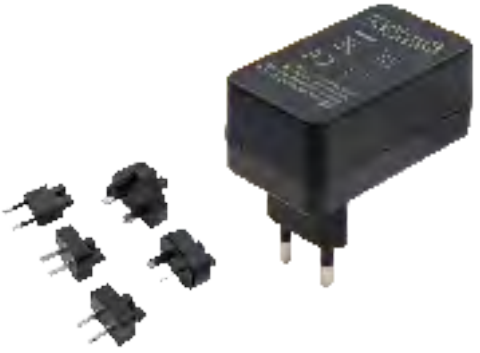
Switching Power Adaptor
Wall plug style

Universal 6 Watt - UES06WNCP1-SPA Series

CB

IP42 Class II Ⅵ

Product Features

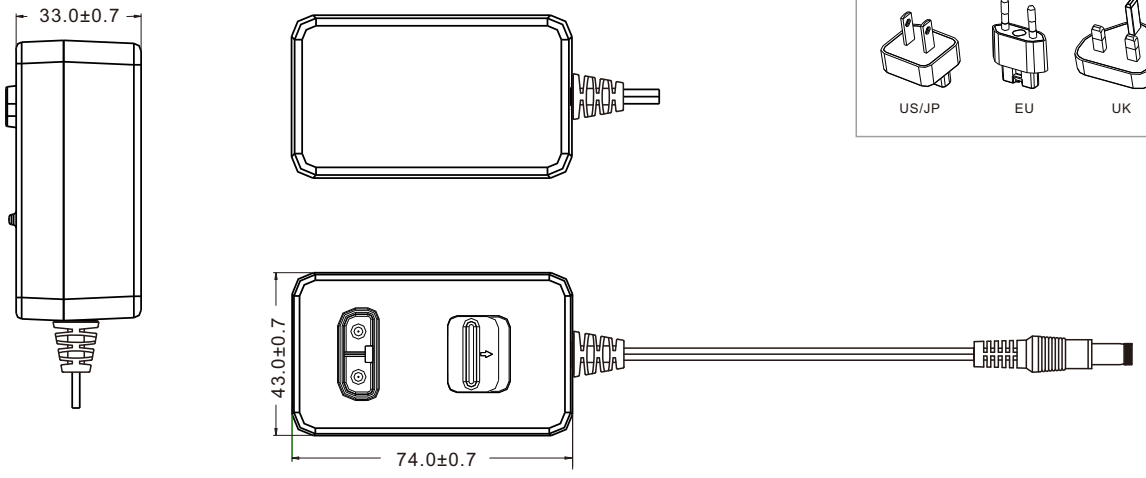


- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 10μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 4.2V-12V outputs, up to 6W
- Up to 5,000m operating altitude
- Interchangeable AC plugs
- Meet medical home healthcare standard

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES06WNCP1-XXXYYYSPA	4.2	0.01-1.20	5.04W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	73.83%	≤3s
	5.0-6.0	0.01-1.00	6.00W	150mVpk-pk	±5%		73.77%	≤3s
	6.1-7.0	0.01-0.86	6.00W	150mVpk-pk	±5%		78.16%	≤3s
	7.1-8.0	0.01-0.75	6.00W	200mVpk-pk	±5%		78.26%	≤3s
	8.1-8.9	0.01-0.67	6.00W	200mVpk-pk	±5%		78.38%	≤3s
	9.0-10.0	0.01-0.60	6.00W	200mVpk-pk	±5%		78.35%	≤3s
	10.1-11.0	0.01-0.54	6.00W	200mVpk-pk	±5%		78.42%	≤3s
	11.1-12.0	0.01-0.50	6.00W	200mVpk-pk	±5%		78.53%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*2)

DC cable and connector can be customized.

Unit: mm

Notes
(*1, 2) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 6 Watt - UES06WNCP1-SPA Series

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	0.2A at 90VAC
Inrush Current	30A max at 240VAC cold start
Touch Leakage Current (max)	≤10μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	74.0(L) 43.0(W) 33.0(H)mm
Weight	85g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-150% 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
CB	IEC60601-1 / IEC60601-1-11

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2**	**EN55035, CISPR 35**
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m, 3V/m 80MHz - 2700MHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±1KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 12 Watt - UES12LCP2-SPA Series
Universal 12 Watt - UES12LCP2-SPC Series

IP42 Class II ⓥⅠ

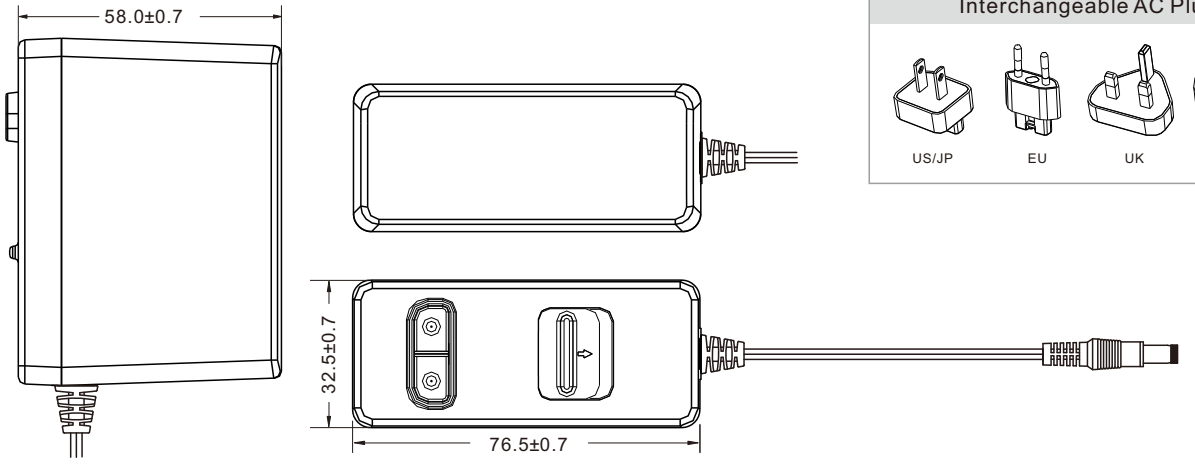
Product Features

- Meets medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 10μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V to 24V outputs, up to 12W
- Up to 5,000m operating altitude
- Interchangeable AC plugs
- UES12LCP2-SPC (Lithium-ion battery charger)

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
UES12LCP2-XXXYYYSPA UES12LCP2-XXXYYYSPC	4.0-5.0	0.01-2.00	10.00W	150mVpk-pk	±7%	Line: ±1% Load: ±5%	79.01%	≤3s
	5.1-5.9	0.01-2.00	11.80W	150mVpk-pk	±7%		80.19%	≤3s
	6.1-7.0	0.01-1.71	12.00W	150mVpk-pk	±7%		83.30%	≤3s
	7.1-8.0	0.01-1.50	12.00W	150mVpk-pk	±7%		83.30%	≤3s
	8.1-9.0	0.01-1.33	12.00W	150mVpk-pk	±5%		83.30%	≤3s
	9.1-10.0	0.01-1.20	12.00W	150mVpk-pk	±5%		83.30%	≤3s
	10.1-11.0	0.01-1.09	12.00W	150mVpk-pk	±5%		83.30%	≤3s
	11.1-12.0	0.01-1.00	12.00W	150mVpk-pk	±5%		83.30%	≤3s
	12.1-13.0	0.01-0.94	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	13.1-14.0	0.01-0.86	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	14.1-15.0	0.01-0.80	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	15.1-16.0	0.01-0.75	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	16.1-17.0	0.01-0.71	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	17.1-18.0	0.01-0.67	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	18.1-19.0	0.01-0.63	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	19.1-20.0	0.01-0.60	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	20.1-21.0	0.01-0.57	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	21.1-22.0	0.01-0.55	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	22.1-23.0	0.01-0.52	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	23.1-24.0	0.01-0.50	12.00W	200mVpk-pk	±5%		83.30%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*3)

DC cable and connector can be customized.

Unit: mm

Notes
(*1, 3) 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.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 12 Watt - UES12LCP2-SPA Series
Universal 12 Watt - UES12LCP2-SPC Series

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 90VAC
Inrush Current	50A max at 240VAC cold start
Touch Leakage Current (max)	≤10μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	76.5(L) 32.5(W) 58.0(H)mm
Weight	130g
MTBF	>100,000hrs Telcordia_SR-332 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(Meet)
CB	IEC60601-1/IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA C22.2 NO. 60601-1	UL62368-1 -
TUV Rheinland/Mark	EN60601-1/EN60601-1-11	-
TUV Rheinland/GS	-	EN62368-1
RCM	-	AS/NZS 62368
CE	-	EN62368
CCC	-	GB4943.1
PSE	-	J62368-1
KC	-	K60950-1
FCC	-	FCC PART 15

EMC

Emissons	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**	**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 (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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 18 Watt - UES18LCP4-SPA Series

IP22 Class II

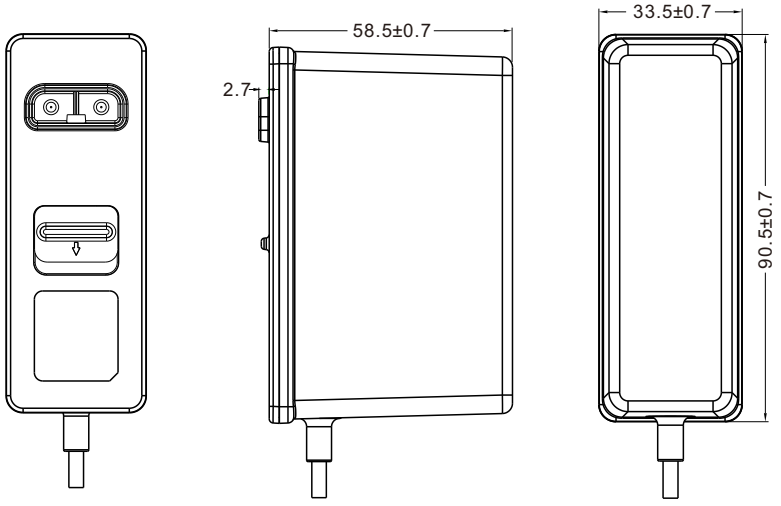
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V-24V outputs, up to 18W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

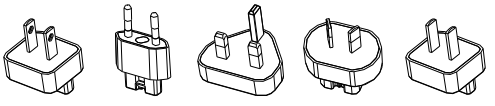
Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES18LCP4-XXXYYYSPA	5.0-6.0	0.01-3.00	18.00W	200mVpk-pk	±6%	Line: ±1% Load: ±5%	81.84% (*2)	≤3s
	6.1-7.0	0.01-2.00	14.00W	200mVpk-pk	±5%		83.36%	≤3s
	7.1-8.0	0.01-2.00	16.00W	200mVpk-pk	±5%		84.21%	≤3s
	8.1-9.0	0.01-2.00	18.00W	200mVpk-pk	±5%		84.91%	≤3s
	9.1-10.0	0.01-1.80	18.00W	200mVpk-pk	±5%		84.97%	≤3s
	10.1-11.0	0.01-1.65	18.00W	200mVpk-pk	±5%		84.96%	≤3s
	11.1-12.0	0.01-1.50	18.00W	200mVpk-pk	±5%		85.05%	≤3s
	12.1-13.0	0.01-1.40	18.00W	200mVpk-pk	±5%		85.14%	≤3s
	13.1-14.0	0.01-1.30	18.00W	200mVpk-pk	±5%		85.17%	≤3s
	14.1-15.0	0.01-1.20	18.00W	200mVpk-pk	±5%		85.14%	≤3s
	15.1-16.0	0.01-1.13	18.00W	200mVpk-pk	±5%		85.18%	≤3s
	16.1-17.0	0.01-1.10	18.00W	200mVpk-pk	±5%		85.37%	≤3s
	17.1-18.0	0.01-1.05	18.00W	200mVpk-pk	±5%		85.19%	≤3s
	18.1-19.0	0.01-0.95	18.00W	200mVpk-pk	±5%		85.22%	≤3s
	19.1-20.0	0.01-0.90	18.00W	200mVpk-pk	±5%		85.22%	≤3s
	20.1-21.0	0.01-0.86	18.00W	200mVpk-pk	±5%		85.25%	≤3s
	21.1-22.0	0.01-0.82	18.00W	200mVpk-pk	±5%		85.25%	≤3s
	22.1-23.0	0.01-0.80	18.00W	200mVpk-pk	±5%		85.36%	≤3s
	23.1-24.0	0.01-0.75	18.00W	200mVpk-pk	±5%		85.26%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*3)



Unit: mm

DC cable and connector can be customized.

Notes
(*1, 3) Other options are available, please contact our sales representative for details.
(*2) Meets energy efficiency level V only.

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	90.5(L) 33.5(W) 58.5(H)mm
Weight	160g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-150% 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
CB	IEC60601-1 / IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1 / 60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368
TUV Rheinland/Mark	EN60601-1 / EN60601-1-11	-
TUV Rheinland/GS	-	EN62368-1
CE	-	EN62368
CCC	-	GB4943.1
PSE	-	J62368
KC	-	K60950-1
RCM	-	AS/NZS 62368
FCC	-	FCC PART 15

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
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 - 2700MHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±2KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 24 Watt - UES24LCP1-SPA Series

IP22 Class II

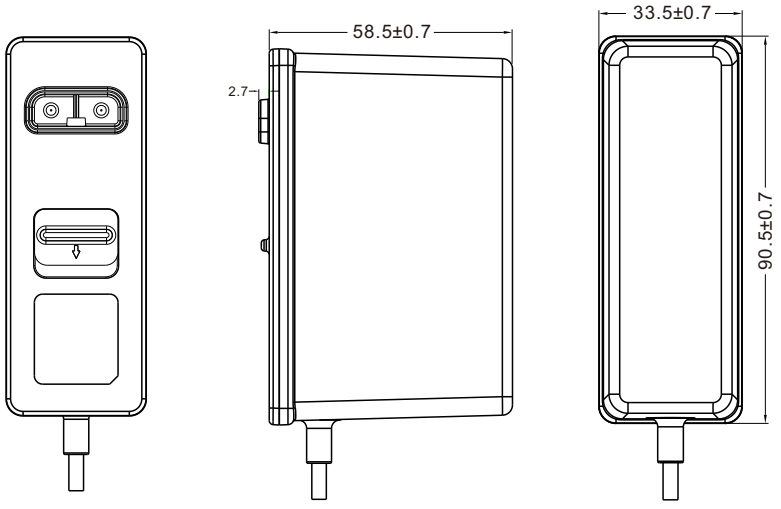
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 6.1V-52V outputs, up to 24W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

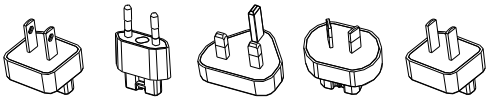
Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES24LCP1-XXXYYYSPA	6.1-7.0	0.01-3.00	21.00W	120mVpk-pk	±5%	Line: ±1% Load: ±5%	86.2%	≤3s
	7.1-8.0	0.01-2.62	21.00W	120mVpk-pk	±5%		86.2%	≤3s
	8.1-9.0	0.01-2.33	21.00W	150mVpk-pk	±5%		86.2%	≤3s
	9.1-10.0	0.01-2.10	21.00W	150mVpk-pk	±5%		86.2%	≤3s
	10.1-11.0	0.01-2.18	24.00W	150mVpk-pk	±5%		87.0%	≤3s
	11.1-12.0	0.01-2.00	24.00W	150mVpk-pk	±5%		87.0%	≤3s
	12.1-13.0	0.01-1.84	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	13.1-14.0	0.01-1.71	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	14.1-15.0	0.01-1.60	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	15.1-16.0	0.01-1.50	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	16.1-17.0	0.01-1.41	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	17.1-18.0	0.01-1.33	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	18.1-19.0	0.01-1.26	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	19.1-20.0	0.01-1.20	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	20.1-21.0	0.01-1.14	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	21.1-22.0	0.01-1.09	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	22.1-23.0	0.01-1.04	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	23.1-24.0	0.01-1.00	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	45.1-46.0	0.01-0.52	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	46.1-47.0	0.01-0.51	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	47.1-48.0	0.01-0.50	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	48.1-49.0	0.01-0.48	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	49.1-50.0	0.01-0.48	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	50.1-51.0	0.01-0.47	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	51.1-52.0	0.01-0.46	24.00W	300mVpk-pk	±5%		87.0%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*2)



Unit: mm

DC cable and connector can be customized.

Notes
(*1, 2) Other options are available, please contact our sales representative for details.

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	90.5(L) 33.5(W) 58.5(H)mm
Weight	170g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃
Isolation	4,000VAC Input to Output

Protection

Overload	120-150% 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
CB	IEC60601-1/60601-1-11 ANSI/AAMI ES60601-1/60601-1-11	IEC62368-1
UL	CAN/CSA-C22.2 NO. 60601-1	UL62368
TUV Rheinland/Mark	EN60601-1/EN60601-1-11	-
TUV Rheinland/GS	-	EN62368-1
CE	-	EN62368
CCC	-	GB4943.1
PSE	-	J62368
KC	-	K60950-1
RCM	-	AS/NZS62368.1
FCC	-	FCC PART 15

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
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**	**EN55024, CISPR 24**
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m, 3V/m 80MHz - 2700MHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±2KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style&Desktop style

Universal 24 Watt - UES24LCP6-SPA Series
Universal 24 Watt - UES24E-SPA Series

IP42 Class II

NEW

Product Features

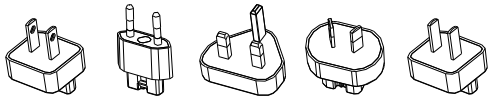
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V-24V outputs, up to 24W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

Models & Parameters

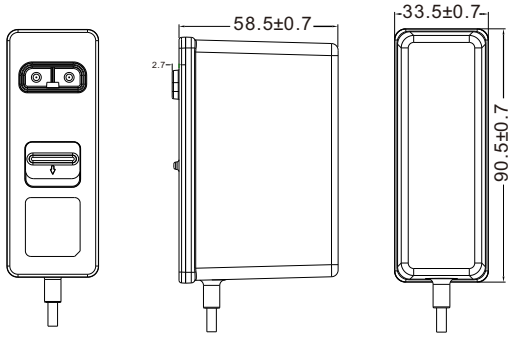
Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES24LCP6-XXXYYYSPA UES24E-XXXYYYSPA	5.0-5.9	0.01-3.00	17.70W	120mVpk-pk	±5%	Line:±1% Load: ±5%	83.0%	≤3s
	6.0-7.5	0.01-3.00	22.50W	120mVpk-pk	±5%		86.6%	≤3s
	7.6-8.0	0.01-2.62	21.00W	120mVpk-pk	±5%		86.2%	≤3s
	8.1-8.9	0.01-2.36	21.00W	150mVpk-pk	±5%		86.2%	≤3s
	9.0-10.0	0.01-2.40	24.00W	150mVpk-pk	±5%		86.8%	≤3s
	10.1-11.0	0.01-2.18	24.00W	150mVpk-pk	±5%		86.8%	≤3s
	11.1-12.0	0.01-2.00	24.00W	150mVpk-pk	±5%		86.8%	≤3s
	12.1-13.0	0.01-1.84	24.00W	200mVpk-pk	±5%		86.8%	≤3s
	13.1-14.0	0.01-1.71	24.00W	200mVpk-pk	±5%		86.8%	≤3s
	14.1-15.0	0.01-1.60	24.00W	200mVpk-pk	±5%		86.8%	≤3s
	19.0-20.0	0.01-1.20	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	20.1-21.0	0.01-1.14	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	21.1-22.0	0.01-1.09	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	22.1-23.0	0.01-1.04	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	23.1-24.0	0.01-1.00	24.00W	240mVpk-pk	±5%		86.8%	≤3s

Mechanical Details

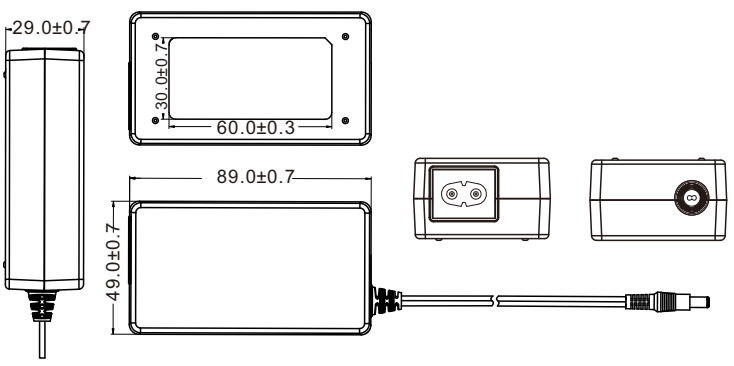
Interchangeable AC Plug Options (*2)



UES24LCP6-XXXYYYSPA



UES24E-XXXYYYSPA



DC cable and connector can be customized.

Unit: mm

Notes
(*1, 2) Other options are available, please contact our sales representative for details.

Universal 24 Watt - UES24LCP6-SPA Series
Universal 24 Watt - UES24E-SPA Series

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	0.7A at 100VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	90.5(L) 33.5(W) 58.5(H)mm(UES24LCP6)
	90.5(L) 33.5(W) 58.5(H)mm(UES24E)
Weight	150g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-200% rated output power, auto recovery
Over Voltage	110-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	- -
TUV Mark	EN60601-1	EN62368-1
CCC	-	GB4943.1
PSE	-	J62368
KC	-	K62368-1
RCM	-	AS/NZS 62368.1
FCC	-	FCC PART 15
	-	

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
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 - 2.7GHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±1KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 36 Watt - UES36LCP1-SPA Series

IP 42 Class II

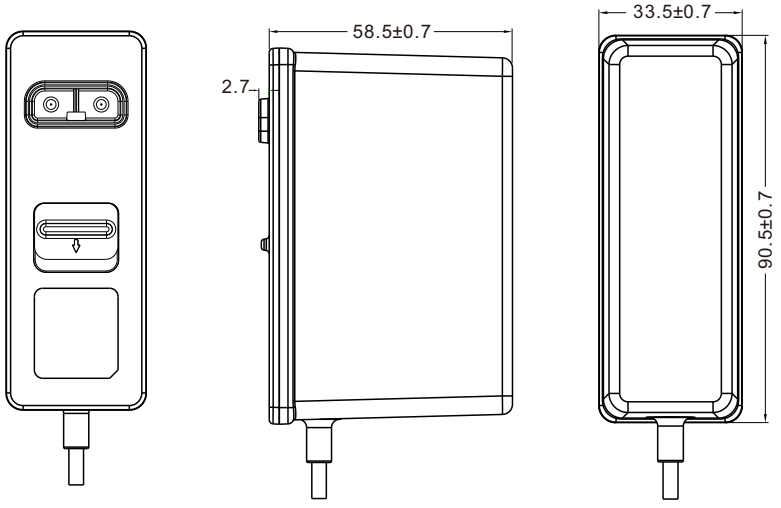
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V-48V outputs, up to 36W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

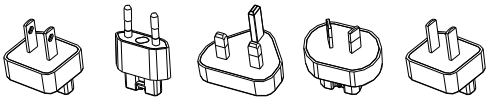
Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power (max)	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay (@115V&230V)
UES36LCP1-XXXYYYSPA	5.0	0.01-6.00	30.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	85.00%	≤3s
	5.1	0.01-5.00	30.00W	200mVpk-pk	±5%		88.30%	≤3s
	7.5-14.0	0.01-4.00	36.00W	200mVpk-pk	±5%		88.30%	≤3s
	14.1-21.0	0.01-2.40	36.00W	200mVpk-pk	±5%		88.30%	≤3s
	21.1-30.3	0.01-1.63	36.00W	200mVpk-pk	±5%		88.30%	≤3s
	30.1-48.0	0.01-1.16	36.00W	200mVpk-pk	±5%		88.30%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*2)



Unit: mm

DC cable and connector can be customized.

Notes
(*1, 2) Other options are available, please contact our sales representative for details.

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	1.0A at 80VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	90.5(L) 33.5(W) 58.5(H)mm
Weight	210g
MTBF	>100,000hrs Telcordia_SR-332 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	ITE
CB	IEC60601-1/60601-1-11 ANSI/AAMI ES60601-1/60601-1-11	IEC62368-1
UL	CAN/CSA-C22.2 NO. 60601-1	UL62368
TUV Rheinland/Mark	EN60601-1/EN60601-1-11	-
TUV Rheinland/GS		EN62368-1
CE	-	EN62368-1
CCC	-	GB4943.1
PSE	-	J62368
KC	-	K62368-1
RCM	-	AS/NZS62368
FCC	-	FCC PART 15
PSB		IEC62368-1
BIS		IEC60950-1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR32
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 - 2700MHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge (*6)	IEC61000-4-5	±2KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 36 Watt - UES36C1-SPA Series

IP 42 Class II VI

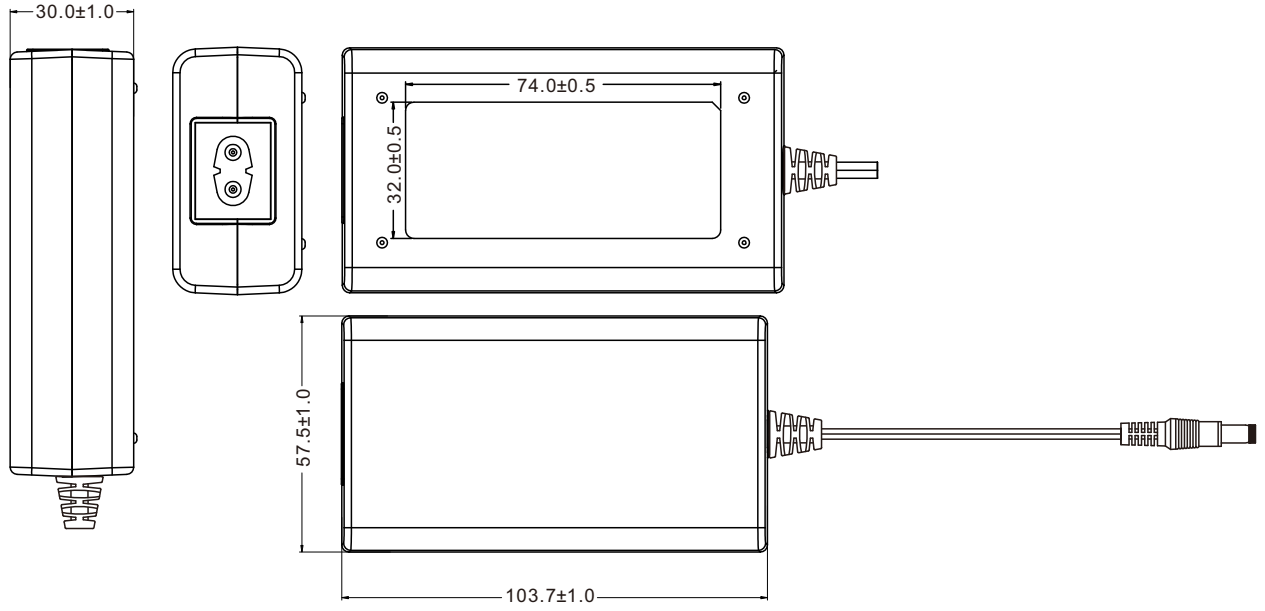
Product Features

- Medical & ITE safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V to 48V outputs, up to 36W
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage (V)	Current (A)	Rated Power (max)	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay (@115V&230V)
UES36C1-XXXYYYSPA	5.0	0.01-6.00	30.0W	200mVpk-pk	±8%	Line: ±1% Load: ±5%	85.00%	≤3s
	5.1-5.9	0.01-5.00	30.0W	200mVpk-pk	±5%		88.30%	≤3s
	7.5-14.0	0.01-4.00	36.0W	200mVpk-pk	±5%		88.30%	≤3s
	14.1-21.0	0.01-2.40	36.0W	200mVpk-pk	±5%		88.30%	≤3s
	21.1-30.0	0.01-1.63	36.0W	200mVpk-pk	±5%		88.30%	≤3s
	30.1-48.0	0.01-1.16	36.0W	300mVpk-pk	±5%		88.30%	≤3s

Mechanical Details



DC cable and connector can be customized.

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	1.0A at 80VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	103.7(L) 57.5(W) 30.0(H)mm
Weight	210g
MTBF	>100,000hrs Telcordia_SR-332 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	ITE
CB	IEC60601-1/60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1
TUV Rheinland/Mark	EN60601-1/EN60601-1-11	-
TUV Rheinland/GS	-	EN62368-1
CE	-	EN62368-1
CCC	-	GB4943
PSE	-	J62368
KC	-	K60950
RCM	-	AS/NZS62368
FCC		FCC PART 15

EMC

Emissons	Medical	ITE
Conducted	IEC/EN 60601-1-2,CISPR 11	EN55032, CISPR32
Radiated	IEC/EN 60601-1-2,CISPR 11	EN55032, CISPR32
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 - 2700MHz
EFT/Burst	EN61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge (*6)	EN61000-4-5	±4KV 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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 48 Watt - UES48-SPAZ Series

IP22 Class I & II ⓥⅠ

Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Earth Leakage current ≤ 5mA
- Energy efficiency level VI
- ≤0.075 Watts Standby Power
- 9.1V-54V outputs, up to 48W
- 5,000m Operating Altitude

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES48-XXXYYYSPAZ	9.1-10.0	0.01-4.50	45.00W	120mVpk-pk	±5%	Line: ±1% Load: ±5%	88.7%	≤3s
	10.1-11.0	0.01-4.36	47.96W	120mVpk-pk	±5%		89.0%	≤3s
	11.1-12.0	0.01-4.00	48.00W	120mVpk-pk	±5%		89.0%	≤3s
	12.1-13.0	0.01-3.69	47.97W	120mVpk-pk	±5%		89.0%	≤3s
	13.1-14.0	0.01-3.42	47.88W	120mVpk-pk	±5%		89.0%	≤3s
	14.1-15.0	0.01-3.20	48.00W	120mVpk-pk	±5%		89.0%	≤3s
	15.1-16.0	0.01-3.00	48.00W	120mVpk-pk	±5%		89.0%	≤3s
	16.1-17.0	0.01-2.82	47.94W	120mVpk-pk	±5%		89.0%	≤3s
	17.1-18.0	0.01-2.66	47.88W	120mVpk-pk	±5%		89.0%	≤3s
	18.1-19.0	0.01-2.52	47.88W	120mVpk-pk	±5%		89.0%	≤3s
	19.1-20.0	0.01-2.40	48.00W	120mVpk-pk	±5%		89.0%	≤3s
	20.1-21.0	0.01-2.28	47.88W	150mVpk-pk	±5%		89.0%	≤3s
	21.1-22.0	0.01-2.18	47.96W	150mVpk-pk	±5%		89.0%	≤3s
	22.1-23.0	0.01-2.08	47.84W	150mVpk-pk	±5%		89.0%	≤3s
	23.1-24.0	0.01-2.00	48.00W	150mVpk-pk	±5%		89.0%	≤3s
	24.1-25.0	0.01-1.92	48.00W	150mVpk-pk	±5%		89.0%	≤3s
	25.1-26.0	0.01-1.84	47.84W	150mVpk-pk	±5%		89.0%	≤3s
	26.1-27.0	0.01-1.77	47.79W	150mVpk-pk	±5%		89.0%	≤3s
	27.1-28.0	0.01-1.71	47.88W	150mVpk-pk	±5%		89.0%	≤3s
	28.1-29.0	0.01-1.65	47.85W	150mVpk-pk	±5%		89.0%	≤3s
	29.1-30.0	0.01-1.60	48.00W	150mVpk-pk	±5%		89.0%	≤3s
	30.1-31.0	0.01-1.54	47.74W	300mVpk-pk	±5%		89.0%	≤3s
	31.1-32.0	0.01-1.50	48.00W	300mVpk-pk	±5%		89.0%	≤3s
	32.1-33.0	0.01-1.45	47.85W	300mVpk-pk	±5%		89.0%	≤3s
	33.1-34.0	0.01-1.41	47.94W	300mVpk-pk	±5%		89.0%	≤3s
	34.1-35.0	0.01-1.37	47.95W	300mVpk-pk	±5%		89.0%	≤3s
	35.1-36.0	0.01-1.33	47.88W	300mVpk-pk	±5%		89.0%	≤3s
	36.1-37.0	0.01-1.29	47.73W	300mVpk-pk	±5%		89.0%	≤3s
	37.1-38.0	0.01-1.26	47.88W	300mVpk-pk	±5%		89.0%	≤3s
	38.1-39.0	0.01-1.23	47.97W	300mVpk-pk	±5%		89.0%	≤3s
	39.1-40.0	0.01-1.20	48.00W	300mVpk-pk	±5%		89.0%	≤3s
	40.1-41.0	0.01-1.17	47.97W	300mVpk-pk	±5%		89.0%	≤3s
	41.1-42.0	0.01-1.14	47.88W	300mVpk-pk	±5%		89.0%	≤3s
	42.1-43.0	0.01-1.11	47.73W	300mVpk-pk	±5%		89.0%	≤3s
	43.1-44.0	0.01-1.09	47.96W	300mVpk-pk	±5%		89.0%	≤3s
	44.1-45.0	0.01-1.06	47.70W	300mVpk-pk	±5%		89.0%	≤3s
	45.1-46.0	0.01-1.04	47.84W	300mVpk-pk	±5%		89.0%	≤3s
	46.1-47.0	0.01-1.02	47.94W	300mVpk-pk	±5%		89.0%	≤3s
	47.1-48.0	0.01-1.00	48.00W	300mVpk-pk	±5%		89.0%	≤3s
	48.1-49.0	0.01-0.97	47.53W	300mVpk-pk	±5%		89.0%	≤3s
	49.1-50.0	0.01-0.96	48.00W	300mVpk-pk	±5%		89.0%	≤3s
	50.1-51.0	0.01-0.94	47.94W	300mVpk-pk	±5%		89.0%	≤3s
	51.1-52.0	0.01-0.92	47.84W	300mVpk-pk	±5%		89.0%	≤3s
	52.1-53.0	0.01-0.90	47.70W	300mVpk-pk	±5%		89.0%	≤3s
	53.1-54.0	0.01-0.88	47.52W	300mVpk-pk	±5%		89.0%	≤3s

Model encoding: replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I) AC inlets

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Desktop style

Universal 48 Watt - UES48-SPAZ Series

Input

Input Voltage Range	90-264VAC (Class I); 80-264VAC (Class II)
Frequency Range	47-63Hz
Input Current	1.1A at 80/90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	Class I & Class II ≤ 100μA at 264VAC

Environmental

Operating Temperature	-10℃ to 40℃
Storage Temperature	-20℃ to 70℃
Operating Humidity	10% to 90% RH
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

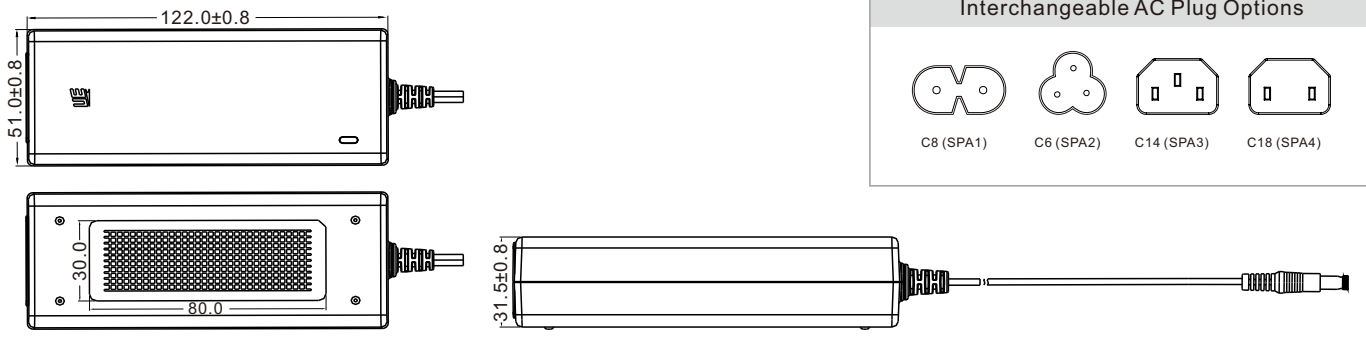
General

Dimensions	122(L) 51(W) 31.5(H)mm
Weight	240g
MTBF	>190,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-180% rated output power, auto recovery
Over Voltage	120-180% rated output voltage, auto recovery
Short Circuit	Trip and restart (hiccup mode)

Mechanical Details



Interchangeable AC Plug Options

DC cable and connector can be customized.

Unit: mm

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1,IEC60601-1-11(ClassII)	IEC60950-1 IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL60950-1 UL62368-1
TUV Rheinland/Mark	EN60601-1,EN60601-1-11(ClassII)	-
TUV Rheinland/GS	-	EN62368-1
CCC	-	GB4943.1
CE	-	EN62368
PSE	-	J62368
RCM	-	AS/NZS 62368.1
KC	-	K60950-1
FCC	-	FCC PART 15

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±4KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 60 Watt - UES60LCP2-SPA Series

IP 42 Class II

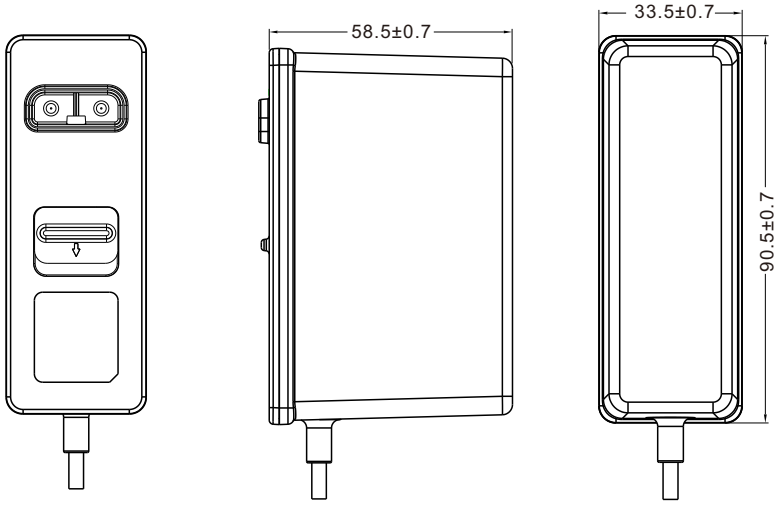
Product Features

- Medical & ITE safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- ≤ 0.15W standby power
- 12V to 24V outputs, up to 60W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

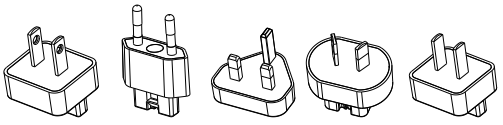
Models & Ratings

Model Number	Voltage(*1) (V)	Current (A)	Rated Power (max)	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average) (*3)	Start Up Delay (@115V&230V)
UES60LCP2-XXXYYYSPA	12.0	0.01-5.00	60.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	89.00%	≤3s
	12.1-13.0	0.01-4.60	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	13.1-14.0	0.01-4.28	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	14.1-15.0	0.01-4.00	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	19.0	0.01-3.15	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	19.1-20.0	0.01-3.00	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	20.1-21.0	0.01-2.85	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	21.1-22.0	0.01-2.72	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	22.1-23.0	0.01-2.60	60.00W	200mVpk-pk	±5%		89.00%	≤3s
	23.1-24.0	0.01-2.50	60.00W	200mVpk-pk	±5%		89.00%	≤3s

Mechanical Details



Interchangeable AC Plug Options



Unit: mm

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	1.7A at 80VAC
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-5℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

Gemeral

Dimensions	90.5(L) 33.5(W) 58.5(H)mm
Weight	220g
MTBF	>100,000hrs Telcordia_SR-332 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	ITE
CB	IEC60601-1,IEC60601-1-11(ClassII)	IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL62368-1
TUV Rheinland/Mark	EN60601-1/EN60601-1-11	-
TUV Rheinland/GS	-	EN62368-1
CCC	-	GB4943.1
CE	-	EN62368
PSE	-	J62368
RCM	-	AS/NZS 62368.1
KC	-	K62368-1
FCC	-	FCC PART 15

EMC

Emissons	Medical	ITE
Conducted	IEC/EN 60601-1-2,CISPR 11	EN55032, CISPR32
Radiated	IEC/EN 60601-1-2,CISPR 11	EN55032, CISPR32
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 - 2700MHz
EFT/Burst	EN61000-4-4	±2kV on AC port, ±1kV on signal ports
Surge (*6)	EN61000-4-5	±1KV 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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 65 Watt - UES65-SPAZ Series

IP22 Class I & II

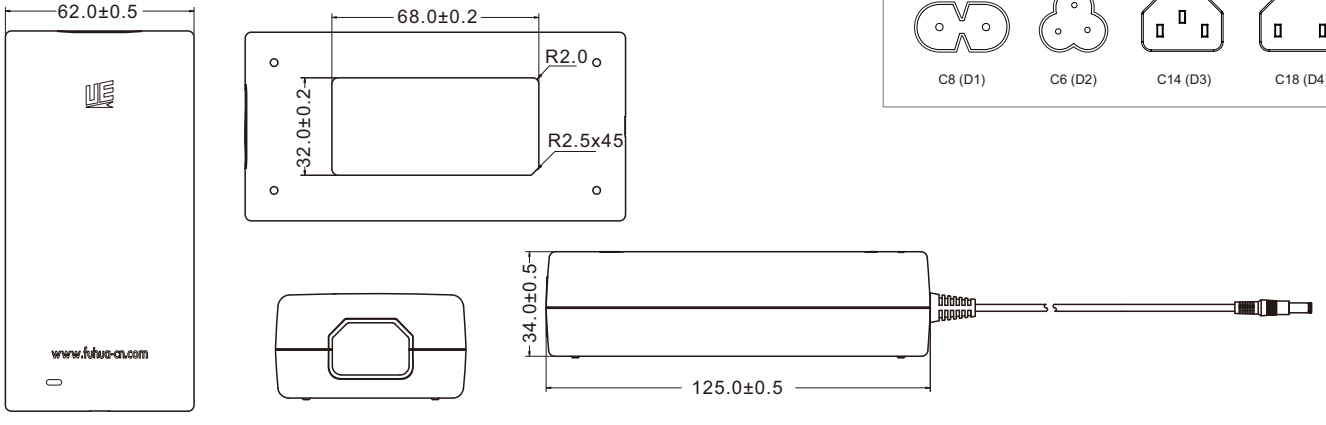
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Earth Leakage current ≤ 5mA
- Energy efficiency level VI
- ≤ 0.15W standby power
- 9V-54V outputs, up to 65W
- Up to 5,000m operating altitude
- 4 types of AC inlet

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES65-XXXYYYSPAZ UES65-XXXYYYSPA2-OP	9.0-12.0	0.01-5.42	65.04W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	89.00%	≤3s
	12.1-13.0	0.01-5.00	65.00W	200mVpk-pk	±5%		89.00%	≤3s
	13.1-14.0	0.01-4.64	64.96W	200mVpk-pk	±5%		89.00%	≤3s
	14.1-15.0	0.01-4.30	64.50W	200mVpk-pk	±5%		89.00%	≤3s
	15.1-16.0	0.01-4.06	64.96W	200mVpk-pk	±5%		89.00%	≤3s
	16.1-17.0	0.01-3.82	64.94W	200mVpk-pk	±5%		89.00%	≤3s
	17.1-18.0	0.01-3.60	64.80W	200mVpk-pk	±5%		89.00%	≤3s
	18.1-19.0	0.01-3.40	64.60W	200mVpk-pk	±5%		89.00%	≤3s
	19.1-20.0	0.01-3.24	64.80W	200mVpk-pk	±5%		89.00%	≤3s
	20.1-21.0	0.01-3.09	64.89W	200mVpk-pk	±5%		89.00%	≤3s
	21.1-22.0	0.01-2.95	64.90W	200mVpk-pk	±5%		89.00%	≤3s
	22.1-23.0	0.01-2.82	64.86W	200mVpk-pk	±5%		89.00%	≤3s
	23.1-24.0	0.01-2.70	64.80W	240mVpk-pk	±5%		89.00%	≤3s
	48.0	0.01-1.35	64.80W	300mVpk-pk	±5%		89.00%	≤3s
	48.1-54.0	0.01-1.20	64.80W	300mVpk-pk	±5%		89.00%	≤3s

Mechanical Details



Interchangeable AC Plug Options

DC cable and connector can be customized.

Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

Input

Input Voltage Range	90-264VAC (Class I); 80-264VAC (Class II)
Frequency Range	47-63Hz
Input Current	2.0A at 80/90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	125.0(L) 62.0(W) 34.0(H)mm
Weight	315g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-200% 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 IEC60601-1-11	IEC60950-1 IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL60950-1 UL62368-1
TUV Rheinland/Mark	EN60601-1 EN60601-1-11	-
TUV Rheinland/GS	-	EN62368-1
CCC	-	GB4943.1
CE	-	EN62368
FCC	-	FCC PART 15
PSE	-	J62368
BIS	-	IEC60950-1
BSMI	-	CNS14336-1
EAC	-	IEC62368-1
NOM	-	NOM-001-SCFI-2018
PSB	-	IEC62368-1
IRAM	-	IEC62368-1
RCM	-	AS/NZS62368-1
ST	-	IEC62368-1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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 to line (DM)
Conducted Immunity	IEC61000-4-6	3Vrms, 6Vrms (015MHz-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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 120 Watt - UES120DZ-SPA Series

IP22 Class I & II

Product Features

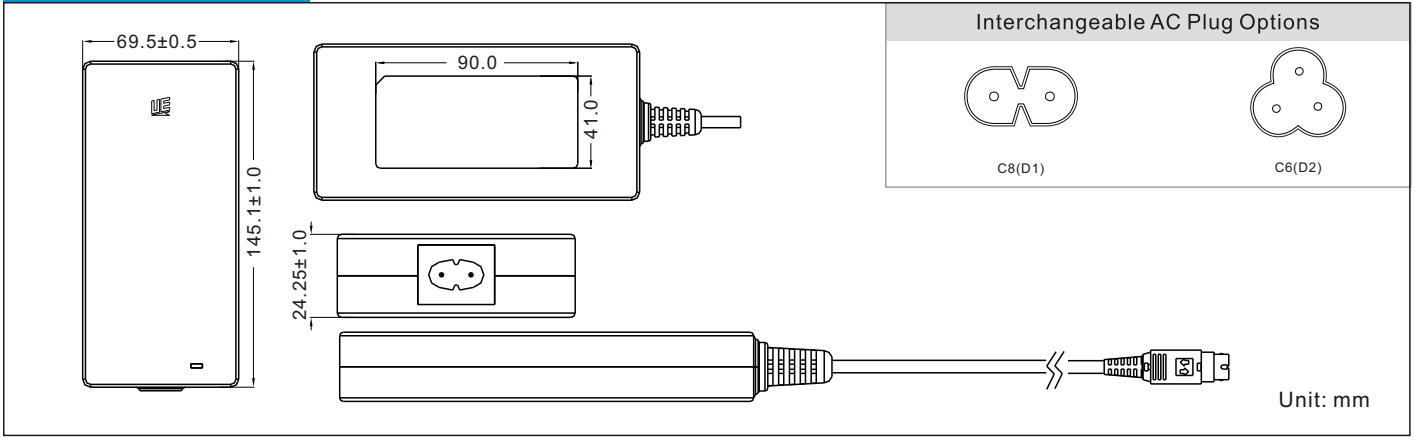
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Earth Leakage current ≤ 5mA
- Energy efficiency level VI
- PF>0.95@230VAC full load
- ≤ 0.15W standby power
- 11V-54V outputs, up to 120W
- Up to 5,000m operating altitude

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency	Start Up Delay
UES120DZ-XXXYYYSPA	11.0-12.0	0.01-10.00	120.00W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	12.1-13.0	0.01-9.23	120.00W	150mVpk-pk	±5%		92.0%	≤3s
	13.1-14.0	0.01-8.57	120.00W	150mVpk-pk	±5%		92.0%	≤3s
	14.1-15.0	0.01-8.00	120.00W	150mVpk-pk	±5%		92.0%	≤3s
	17.1-18.0	0.01-6.66	120.00W	180mVpk-pk	±5%		93.0%	≤3s
	18.1-19.0	0.01-6.31	120.00W	180mVpk-pk	±5%		93.0%	≤3s
	19.1-20.0	0.01-6.00	120.00W	200mVpk-pk	±5%		93.0%	≤3s
	20.1-21.0	0.01-5.71	120.00W	200mVpk-pk	±5%		93.0%	≤3s
	21.1-22.0	0.01-5.45	120.00W	200mVpk-pk	±5%		93.0%	≤3s
	22.1-23.0	0.01-5.21	120.00W	200mVpk-pk	±5%		93.0%	≤3s
	23.1-24.0	0.01-5.00	120.00W	240mVpk-pk	±5%		93.0%	≤3s
	24.1-25.0	0.01-4.80	120.00W	240mVpk-pk	±5%		93.0%	≤3s
	25.1-26.0	0.01-4.61	120.00W	240mVpk-pk	±5%		93.0%	≤3s
	26.1-27.0	0.01-4.44	120.00W	240mVpk-pk	±5%		93.0%	≤3s
	33.1.34.0	0.01-3.52	120.00W	300mVpk-pk	±5%		94.0%	≤3s
	34.1-35.0	0.01-3.42	120.00W	300mVpk-pk	±5%		94.0%	≤3s
	35.1-36.0	0.01-3.33	120.00W	300mVpk-pk	±5%		94.0%	≤3s
	36.1-37.0	0.01-3.24	120.00W	300mVpk-pk	±5%		94.0%	≤3s
	37.1-38.0	0.01-3.15	120.00W	300mVpk-pk	±5%		94.0%	≤3s
	38.1-39.0	0.01-3.07	120.00W	300mVpk-pk	±5%		94.0%	≤3s
	39.1-40.0	0.01-3.00	120.00W	300mVpk-pk	±5%		94.0%	≤3s
	47.1-48.0	0.01-2.50	120.00W	400mVpk-pk	±5%		94.0%	≤3s
	48.1-49.0	0.01-2.44	120.00W	400mVpk-pk	±5%		94.0%	≤3s
	49.1-50.0	0.01-2.40	120.00W	400mVpk-pk	±5%		94.0%	≤3s
	50.1-51.0	0.01-2.35	120.00W	400mVpk-pk	±5%		94.0%	≤3s
	51.1-52.0	0.01-2.30	120.00W	400mVpk-pk	±5%		94.0%	≤3s
	52.1-53.0	0.01-2.26	120.00W	400mVpk-pk	±5%		94.0%	≤3s
	53.1-54.0	0.01-2.22	120.00W	400mVpk-pk	±5%		94.0%	≤3s

Model encoding: replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I)AC inlets

Mechanical Details



Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Desktop style

Universal 120 Watt - UES120DZ-SPA Series

Input

Input Voltage Range	90-264VAC (Class I); 80-264VAC (Class II)
Frequency Range	47-63Hz
Input Current	2.0A at 80/90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

Operating Temperature	-10℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	145.1(L) 69.5(W) 24.25(H)mm
Weight	450g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

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
CB	IEC60601-1 / IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1 / 60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368
TUV Rheinland/Mark	EN60601-1 / EN60601-1-11	-
TUV Rheinland/GS	-	-
CE	-	EN62368
CCC	-	GB4943.1
PSE	-	J62368
KC	-	K62368-1
FCC	-	FCC PART 15
RCM	-	AS/NZS62368.1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/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 to line (DM)
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

UE Electronic

Switching Power Adaptor Desktop style

Universal 150 Watts - UES150C-SPAZ Series

IP42 CLASS I & II (VII)

Product Features

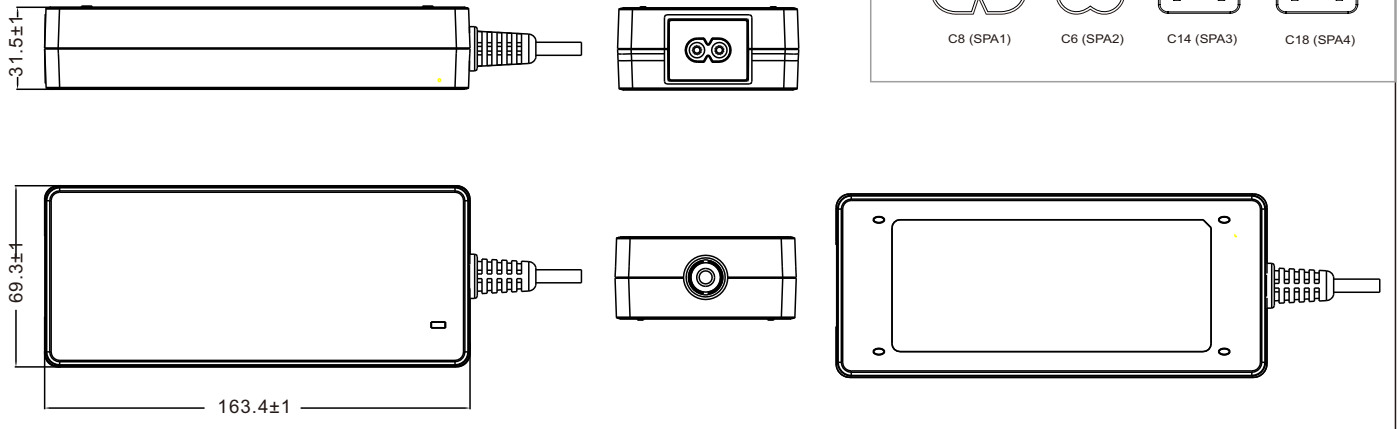
- Medical & I.T.E. & Household safety standard
- 2 MOPP in put to output isolation
- Touch current : ≤ 100μA
- Energy efficiency level VII
- ≤ 0.15W standby power
- 12.0V-54.0V outputs, up to 150W
- Up to 5,000m operating altitude
- High Efficiency up to 94.0%

Models & Parameters

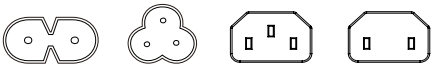
Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (TYPE)	Start Up Delay
UES150C-XXXYYYSPAZ	12.0	0.01-11.00	132.00W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	90.0%	≤3s
	15.0	0.01-9.00	135.00W	150mVpk-pk	±5%		90.0%	≤3s
	18.0	0.01-8.33	149.94W	200mVpk-pk	±5%		91.0%	≤3s
	19.0	0.01-7.89	149.91W	200mVpk-pk	±5%		92.0%	≤3s
	24.0	0.01-6.25	150.00W	200mVpk-pk	±5%		92.0%	≤3s
	36.0	0.01-4.16	149.76W	300mVpk-pk	±5%		92.0%	≤3s
	48.0	0.01-3.12	149.76W	300mVpk-pk	±5%		93.0%	≤3s
	54.0	0.01-2.77	149.58W	300mVpk-pk	±5%		94.0%	≤3s

Model encoding:replace "Z" with"1" for C8 (ClassII),"2" for C6 (ClassI),"3"for C14(ClassI),"4"for C18(ClassII) AC inlets

Mechanical Details



Interchangeable AC Plug Options



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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 150 Watts - UES150C-SPAZ Series

Input

Input Voltage Range	80-264VAC(80-90VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	2.0A at 90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-10℃ to 70℃(40℃-70℃ refer to derating curve)
Storage Temperature	-40℃ to 80℃
Operating Humidity	5% to 95% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	163.4(L) 69.6(W) 31.5(H)mm
Weight	560g
MTBF	>1000,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	130-180% rated output power, auto recovery
Over Voltage	120-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Meets

Safety Agency / Mark	Medical	ITE(meet)	Household(meet)
CB	IEC60601-1 IEC60601-1-11 (pending)	IEC62368-1 (pending)	IEC60335 (pending)
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1 (pending)	-	-
NRTL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL62368-1 (pending)	-
TüV SUD/Mark	EN60601-1 EN60601-1-11 (pending)	-	-
CE	-	EN62368 (pending)	EN 60335 (pending)
FCC	-	FCC PART 15	-

EMC

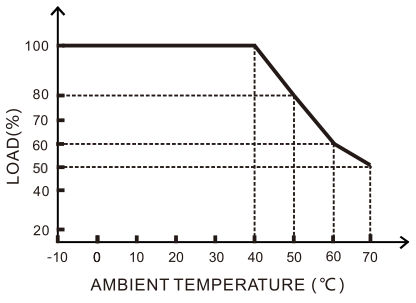
Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Harmonic Currents	EN61000-3-2,Class A	EN61000-3-2,Class A
Voltage Flicker	EN61000-3-3	EN61000-3-3

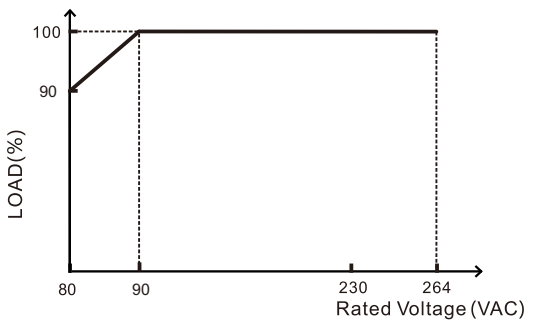
Immunity	IEC/EN60601-1-2	EN55035,CISPR 35
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	3V/m ,3V/m 80MHz - 2.7GMHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±1KV line to line, ±2KV/Line-Earth
Conducted Immunity	IEC61000-4-6	3Vrms, 6Vrms (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	100M Ohms, 500VDC input to output

Derating Curve





UE Electronic

Switching Power Adaptor
Desktop style

Universal 180 Watt - UES180DZ-SPA Series

IP22 Class I & II

Product Features

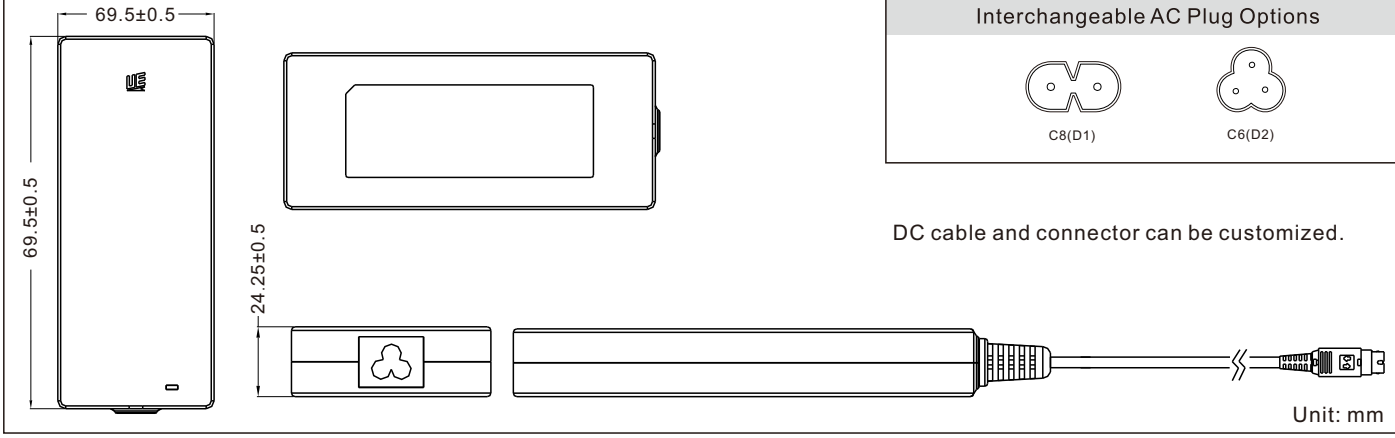
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Earth Leakage current ≤ 5mA
- PF>0.95@230VAC full load
- 11V-56V outputs, up to 180W
- Up to 5,000m operating altitude
- Energy efficiency level VI
  (≤ 0.21W standby power when output voltage > 19V)
- CoC V5 Tier2
  (≤ 0.15W standby power when output voltage ≤ 19V)

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency	Start Up Delay
UES180DZ-XXXYYYSPA	11.0-12.0	0.01-12.50	150.00W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	12.1-13.0	0.01-11.53	150.00W	150mVpk-pk	±5%		92.0%	≤3s
	13.1-14.0	0.01-10.71	150.00W	150mVpk-pk	±5%		92.0%	≤3s
	14.1-15.0	0.01-10.00	150W	150mVpk-pk	±5%		92.0%	≤3s
	18.1-19.0	0.01-9.47	180W	180mVpk-pk	±5%		93.0%	≤3s
	19.1-20.0	0.01-9.00	180W	190mVpk-pk	±5%		93.0%	≤3s
	20.1-21.0	0.01-8.57	180W	200mVpk-pk	±5%		93.0%	≤3s
	21.1-22.0	0.01-8.18	180W	210mVpk-pk	±5%		93.0%	≤3s
	22.1-23.0	0.01-7.82	180W	220mVpk-pk	±5%		93.0%	≤3s
	23.1-24.0	0.01-7.50	180W	230mVpk-pk	±5%		93.0%	≤3s
	24.1-25.0	0.01-7.20	180W	240mVpk-pk	±5%		93.0%	≤3s
	25.1-26.0	0.01-6.92	180W	250mVpk-pk	±5%		93.0%	≤3s
	35.1-36.0	0.01-5.00	180W	260mVpk-pk	±5%		93.0%	≤3s
	36.1-37.0	0.01-4.86	180W	270mVpk-pk	±5%		93.0%	≤3s
	37.1-38.0	0.01-4.73	180W	300mVpk-pk	±5%		94.0%	≤3s
	38.1-39.0	0.01-4.61	180W	300mVpk-pk	±5%		94.0%	≤3s
	39.1-40.0	0.01-4.50	180W	300mVpk-pk	±5%		94.0%	≤3s
	47.1-48.0	0.01-3.75	180W	300mVpk-pk	±5%		94.0%	≤3s
	48.1-49.0	0.01-3.67	180W	300mVpk-pk	±5%		94.0%	≤3s
	49.1-50.0	0.01-3.60	180W	400mVpk-pk	±5%		94.0%	≤3s
	50.1-51.0	0.01-3.52	180W	400mVpk-pk	±5%		94.0%	≤3s
	51.1-52.0	0.01-3.46	180W	400mVpk-pk	±5%		94.0%	≤3s
	52.1-53.0	0.01-3.39	180W	400mVpk-pk	±5%		94.0%	≤3s
	53.1-54.0	0.01-3.33	180W	400mVpk-pk	±5%		94.0%	≤3s
	54.1-55.0	0.01-3.27	180W	400mVpk-pk	±5%		94.0%	≤3s
	55.1-56.0	0.01-3.21	180W	400mVpk-pk	±5%		94.0%	≤3s

Model encoding: replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I)AC inlets

Mechanical Details



Interchangeable AC Plug Options

DC cable and connector can be customized.

Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

Universal 180 Watt - UES180DZ-SPA Series

Input

Input Voltage Range	90-264VAC (Class I); 80-264VAC (Class II)
Frequency Range	47-63Hz
Input Current	3.0A at 80/90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	< 100μA at 264VAC

Environmental

Operating Temperature	-10℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	165.0(L) 69.5(W) 24.25(H)mm
Weight	800g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

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
CB	IEC60601-1 / IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1 / 60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1
TUV Rheinland/Mark	EN60601-1 EN60601-1-11	-
TUV Rheinland/GS	-	-
CE	-	EN62368-1
CCC	-	GB4943.1
FCC	-	FCC PART 15

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Harmonic Currents	IEC/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 to line (DM)
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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 240 Watt - UES240DZ-XXXYYYSPA

IP22 CLASS I & II (VII)

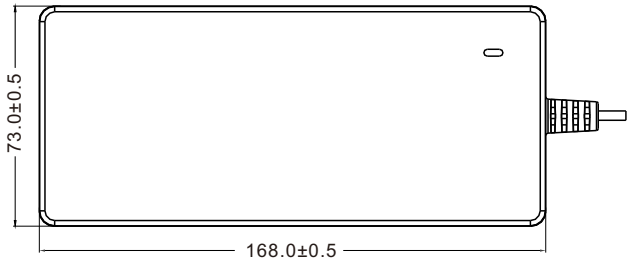
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Touch current ≤ 100μA
- Energy efficiency Level VII
- ≤ 0.15W standby power
- 11V-54V outputs, up to 240W
- Up to 5,000m operating altitude
- 4 types of AC inlet

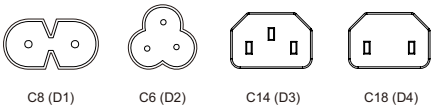
Models & Ratings

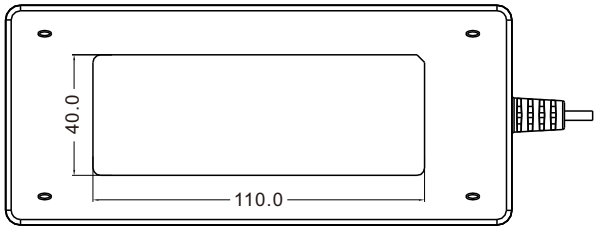
Model Number	Voltage (*1)	Current	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency	Start Up Delay
UES240DZ-XXXYYYSPA	11.0-12.0	0.01-18.00	216.0W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	12.1-13.0	0.01-16.60	215.0W	150mVpk-pk	±5%		92.0%	≤3s
	13.1-14.0	0.01-15.40	215.0W	150mVpk-pk	±5%		92.0%	≤3s
	14.1-15.0	0.01-14.40	216.0W	150mVpk-pk	±5%		92.0%	≤3s
	18.0-19.0	0.01-12.60	239.4W	150mVpk-pk	±5%		92.0%	≤3s
	19.1-20.0	0.01-12.00	240.0W	150mVpk-pk	±5%		93.0%	≤3s
	20.1-21.0	0.01-11.43	240.0W	150mVpk-pk	±5%		93.0%	≤3s
	21.1-22.0	0.01-10.90	239.8W	150mVpk-pk	±5%		93.0%	≤3s
	22.1-23.0	0.01-10.40	239.2W	150mVpk-pk	±5%		93.0%	≤3s
	23.1-24.0	0.01-10.00	240.0W	150mVpk-pk	±5%		93.0%	≤3s
	24.1-25.0	0.01-9.60	240.0W	150mVpk-pk	±5%		93.0%	≤3s
	25.1-26.0	0.01-9.23	240.0W	150mVpk-pk	±5%		93.0%	≤3s
	36.0-37.0	0.01-6.48	240.0W	200mVpk-pk	±5%		93.0%	≤3s
	37.1-38.0	0.01-6.31	239.8W	200mVpk-pk	±5%		93.5%	≤3s
	38.1-39.0	0.01-6.15	239.8W	200mVpk-pk	±5%		93.5%	≤3s
	39.1-40.0	0.01-6.00	240.0W	200mVpk-pk	±5%		93.5%	≤3s
	47.1-48.0	0.01-5.00	240.0W	250mVpk-pk	±5%		93.5%	≤3s
	48.1-49.0	0.01-4.89	236.6W	250mVpk-pk	±5%		94.0%	≤3s
	49.1-50.0	0.01-4.80	240.0W	250mVpk-pk	±5%		94.0%	≤3s
	50.1-51.0	0.01-4.70	239.7W	250mVpk-pk	±5%		94.0%	≤3s
	51.1-52.0	0.01-4.60	239.2W	250mVpk-pk	±5%		94.0%	≤3s
	52.1-53.0	0.01-4.53	240.0W	250mVpk-pk	±5%		94.0%	≤3s
	53.1-54.0	0.01-4.44	240.0W	250mVpk-pk	±5%		94.0%	≤3s

Mechanical Details



Interchangeable AC Plug Options





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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 240 Watt - UES240DZ-XXXYYYSPA

Input

Input Voltage Range	80-264VAC(80-90VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	3.5A max at 100VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(40℃ to 70℃ fer 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	168.0(L) 73.0(W) 31.5(H)mm
Weight	650g
MTBF	>50,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-180% 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
CB	IEC60601-1/IEC60601-1-11	IEC62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1
NRTL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	-
TUV-Mark	EN60601-1/EN60601-1-11	(pending)
CE	-	EN62368-1
PSE	-	J62368-1
CCC	-	GB4943.1

EMC

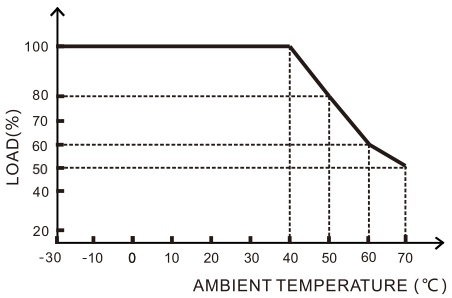
Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Harmonic Currents	EN61000-3-2, Class D	EN61000-3-2, Class D
Voltage Flicker	EN61000-3-3	EN61000-3-3

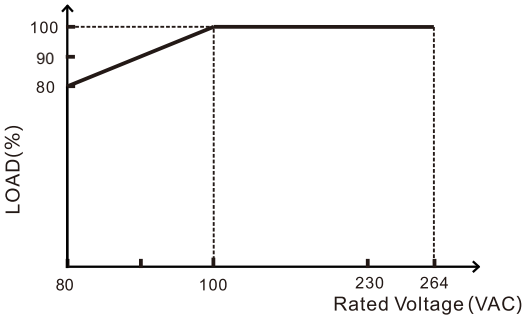
Immunity	IEC/EN60601-1-2	EN55035, CISPR 35
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m ,3V/m 80MHz - 2.7GMHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±1KV line to line,±2KV/Line-Earth
Conducted Immunity	IEC61000-4-6	3Vrms, 6Vrms (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	100M Ohms, 500VDC input to output

Derating Curve





UE Electronic

Switching Power Adaptor
Desktop style

Universal 310 Watt - UES310D-SPAZ

IP42 CLASS I & II (VII)

Product Features

- Medical & I.T.E. safety standard
- 2 MOPP input to output isolation
- Touch current ≤ 100μA
- Energy efficiency Level VII
- ≤ 0.15W standby power
- 12V-54V outputs, up to 310W
- Up to 5,000m operating altitude

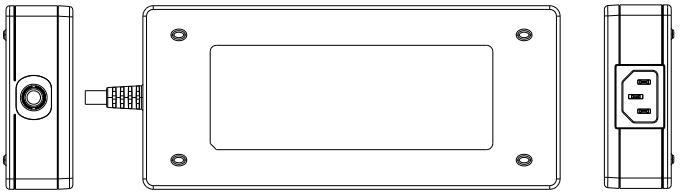
GaN

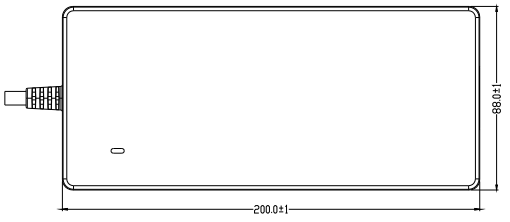
Models & Ratings

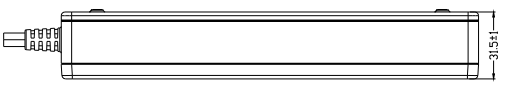
Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency	Start Up Delay
UES310D-XXXYYYSPAZ	12.0	19.50	234.0W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	15.0	18.00	234.0W	200mVpk-pk	±5%		92.0%	≤3s
	19.0	15.00	285.0W	240mVpk-pk	±5%		92.0%	≤3s
	20.0	14.50	290.0W	240mVpk-pk	±5%		92.0%	≤3s
	24.0	12.50	300.0W	300mVpk-pk	±5%		93.0%	≤3s
	48.0	6.45	310.0W	400mVpk-pk	±5%		93.0%	≤3s
	54.0	5.74	310.0W	500mVpk-pk	±5%		93.0%	≤3s

Mechanical Details

Interchangeable AC Plug Options







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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 310 Watt - UES310D-SPAZ

Input

Input Voltage Range	80-264VAC(80-90VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	5.0A max at 90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	200.0(L) 88.0(W) 31.5(H)mm
Weight	800g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

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

Safety Meets

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1/IEC60601-1-11	
NRTL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	-
TUV-Mark	EN60601-1/EN60601-1-11	(pending)
CE	-	-
CCC	-	-
FCC	-	FCC PART15

EMC

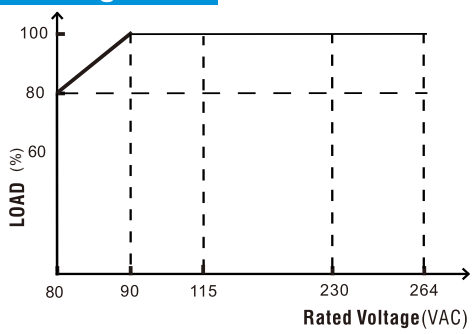
Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Harmonic Currents	EN61000-3-2, Class A	EN61000-3-2, Class A
Voltage Flicker	EN61000-3-3	EN61000-3-3

Immunity	IEC/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	±1KV line to line,±2KV/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	4000VDC input to output
Insulation Resistance	10M Ohms, 500VDC input to output

Derating Curve



UE Electronic

Switching Power Adaptor
Wall plug style

Universal 5 Watt - UE05LZ4-SPA
Universal 5 Watt - UE05LZ5-SPA

Class I I Ⓥ

Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Energy Efficiency level V
- Leakage current ≤ 100μA
- ≤ 0.3W standby power
- 5V output,up to 5W
- Up to 5,000m operating altitude

UE05LZ4-SPA

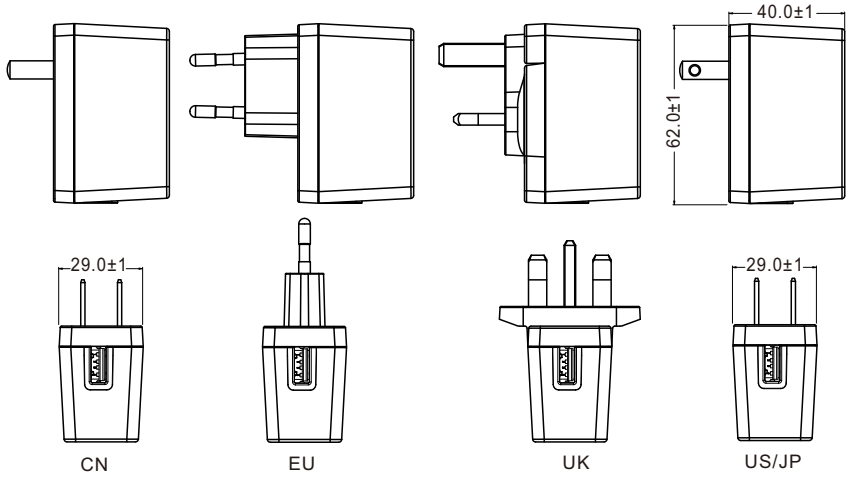
UE05LZ5-SPA

Models & Ratings

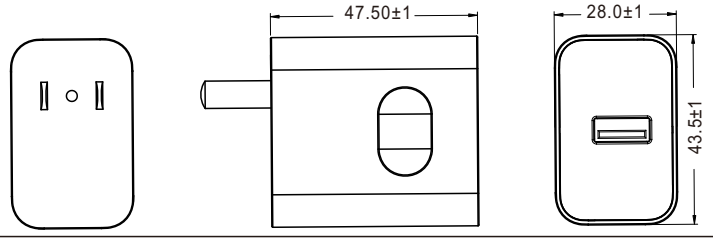
Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UE05LZ4-050YYYSPA	5.0	0.01-1.00	5.00W	200mVpk-pk	±5%	Line:±5% Load:±5%	69%	≤3s
UE05LZ5-050YYYSPA	5.0	0.01-1.00	5.00W	200mVpk-pk	±5%		69%	≤3s

Mechanical Details

UE05LZ4-SPA



UE05LZ5-SPA



Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 5 Watt - UE05LZ4-SPA
Universal 5 Watt - UE05LZ5-SPA

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.2A at 100VAC
Inrush Current	50A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	62.0(L) 40.0(W) 29.0(H)mm(UE05LZ4)
	43.5(L) 28.0(W) 47.5(H)mm(UE05LZ5)
Weight	52g(UE05LZ4) 38g(UE05LZ5)
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-300% rated output power, auto recovery
Over Voltage	200% Max output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	-
TüV SUD/Mark	EN60601-1	-
NRTL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	-
CCC	-	GB4943.1
FCC		FCC PART 15

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**		**-**
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	±1KV line to line (DM)	
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 5Watts - UES05LZ6-SPA Series

Class II VI

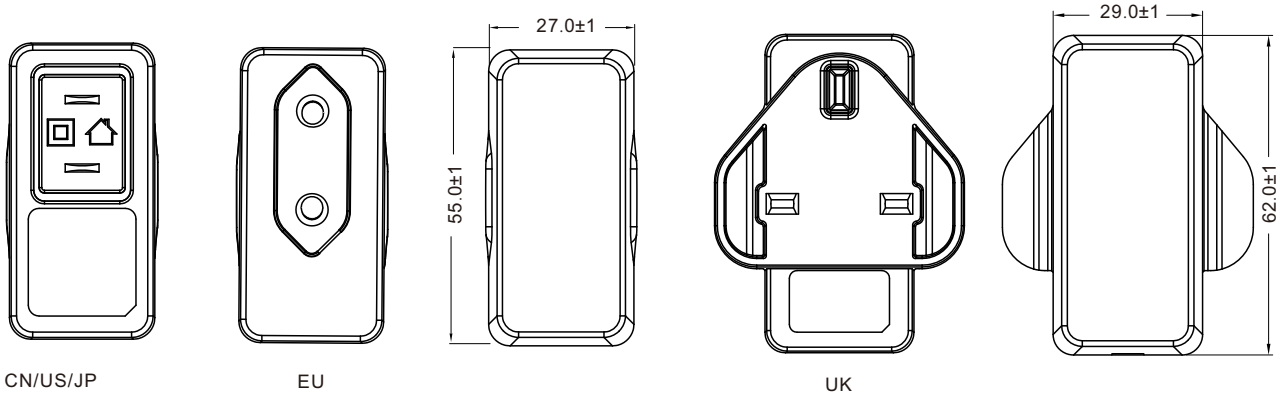
Product Features

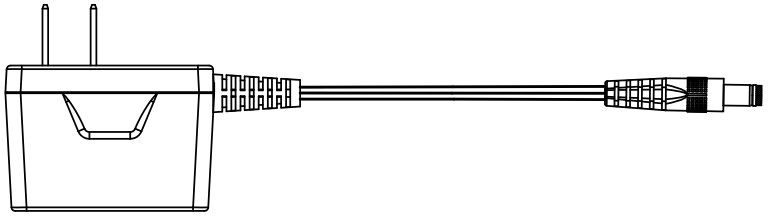
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Energy Efficiency level VI
- Leakage current ≤ 100μA
- ≤ 0.075W standby power
- 5V and 6V output,up to 5W
- Up to 5,000m operating altitude
- Charger turn,light function(white)

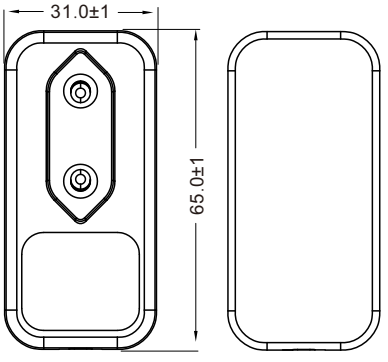
Models & Ratings

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES05LZ6-XXXYYYSPA	5.0 6.0	0.01-1.00 0.01-0.80	5.00W 4.80W	200mVpk-pk 200mVpk-pk	±8% ±8%	Line: ±5% Load: ±5%	73.62% 72.02%	≤3s ≤3s

Mechanical Details







AC Plug Options:

UES05LZ6-XXXYYYSPA

Z: C-CN
U-US/JP
V-EU
D-Brazil
B-UK

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.
(*3) Output voltage 6V:While load 0.01~0.60A meet Efficiency Level VI,load 0.61~0.80A meet Efficiency Level V.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 5Watts - UES05LZ6-SPA Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.2A at 100VAC
Inrush Current	50A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	55.0(L) 38.3(W) 27.0(H)mm 65.0(L) 45.0(W) 31.0(H)mm 62.0(L) 40.0(W) 29.0(H)mm
Weight	60~80g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-300% rated output power, auto recovery
Over Voltage	200% Max output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	IEC62368-1
TUV-SUD/Mark	EN60601-1,EN60601-1-11	-
CCC	-	GB4943.1
FCC	-	FCC PART 15
ETL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL62368-1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±1KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 6 Watt - UES06WZ-SPA Series

IP20 Class II

Product Features

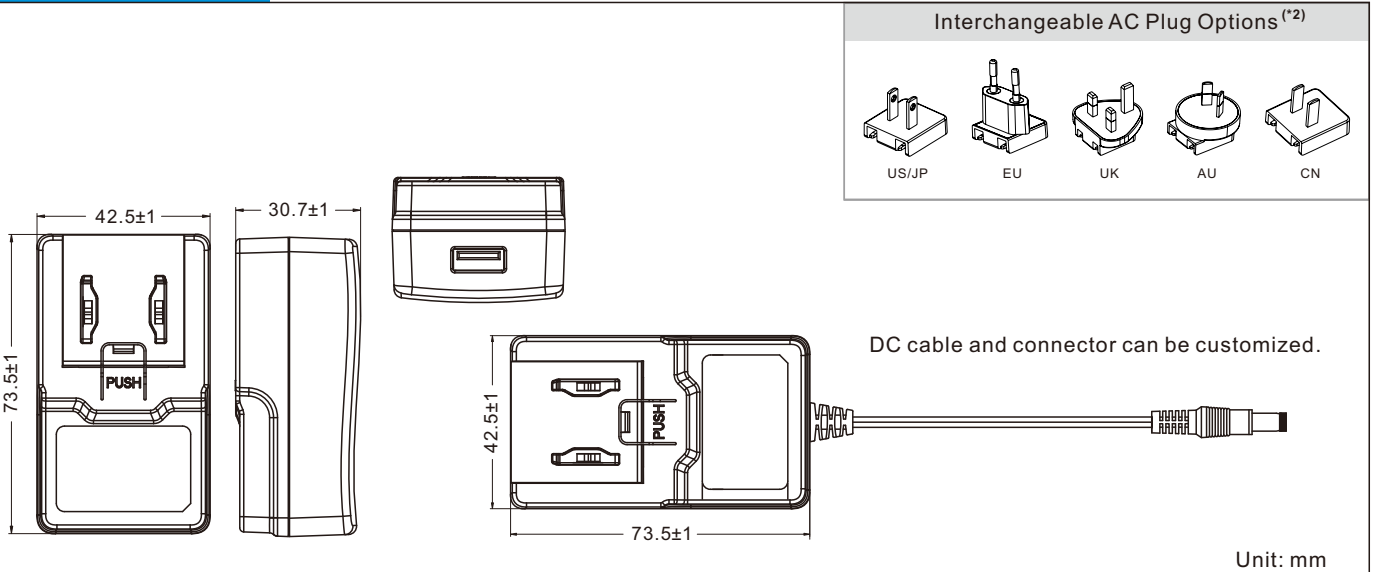
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 10μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 4.2V-12V outputs, up to 6W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES06WZ-XXXYYYSPA	4.2	0.01-1.20	5.04W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	73.83%	≤3s
	5.0-6.0	0.01-1.00	6.00W	150mVpk-pk	±5%		73.77%	≤3s
	6.1-7.0	0.01-0.86	6.00W	150mVpk-pk	±5%		78.16%	≤3s
	7.1-8.0	0.01-0.75	6.00W	200mVpk-pk	±5%		78.26%	≤3s
	8.1-8.9	0.01-0.67	6.00W	200mVpk-pk	±5%		78.38%	≤3s
	9.0-10.0	0.01-0.60	6.00W	200mVpk-pk	±5%		78.35%	≤3s
	10.1-11.0	0.01-0.54	6.00W	200mVpk-pk	±5%		78.42%	≤3s
	11.1-12.0	0.01-0.50	6.00W	200mVpk-pk	±5%		78.53%	≤3s

Model encoding:
For changeable AC plug, replace "Z" with "NCPU" for USB 2.0 port (5V only), "NCP" for fixed DC cable

Mechanical Details



Notes
(*1, 2) Other options are available, please contact our sales representative for details.

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.2A at 90VAC
Inrush Current	30A max at 240VAC cold start
Touch Leakage Current (max)	≤10μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	73.5(L) 42.5(W) 30.7(H)mm
Weight	85g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-150% 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
CB	IEC60601-1	IEC60950-1 IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL60950-1 UL62368-1 CAN/CSA C22.2 NO. 60950-1
TüV-Mark	EN60601-1	-
TüV Rheinland-GS	-	EN62368-1
RCM	-	AS/NZS 62368.2018
CCC	-	GB4943.1
PSE	-	J62368-1
KC	-	K60950-1 (4.2 to 6VDC model only)
CE	-	EN62368
FCC	-	FCC PART 15
BIS	-	IEC60950-1:2005

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2**	**EN55024, CISPR 24**
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m, 3V/m 80MHz - 2700MHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±1KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 10 Watt - UES10LZ1 -SPA
Universal 10 Watt - UES10LZ2 -SPA
Universal 15 Watts - UES15L -SPAZ
Universal 15 Watts - UES15L1 -SPAZ
Universal 15 Watts - UES15L3 -SPAZ

IP20 Class II

Product Features

- Meet medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- Up to 5,000m operating altitude
- USB-A port/ USB-C port / fixed cable design

UES15L-SPAZ

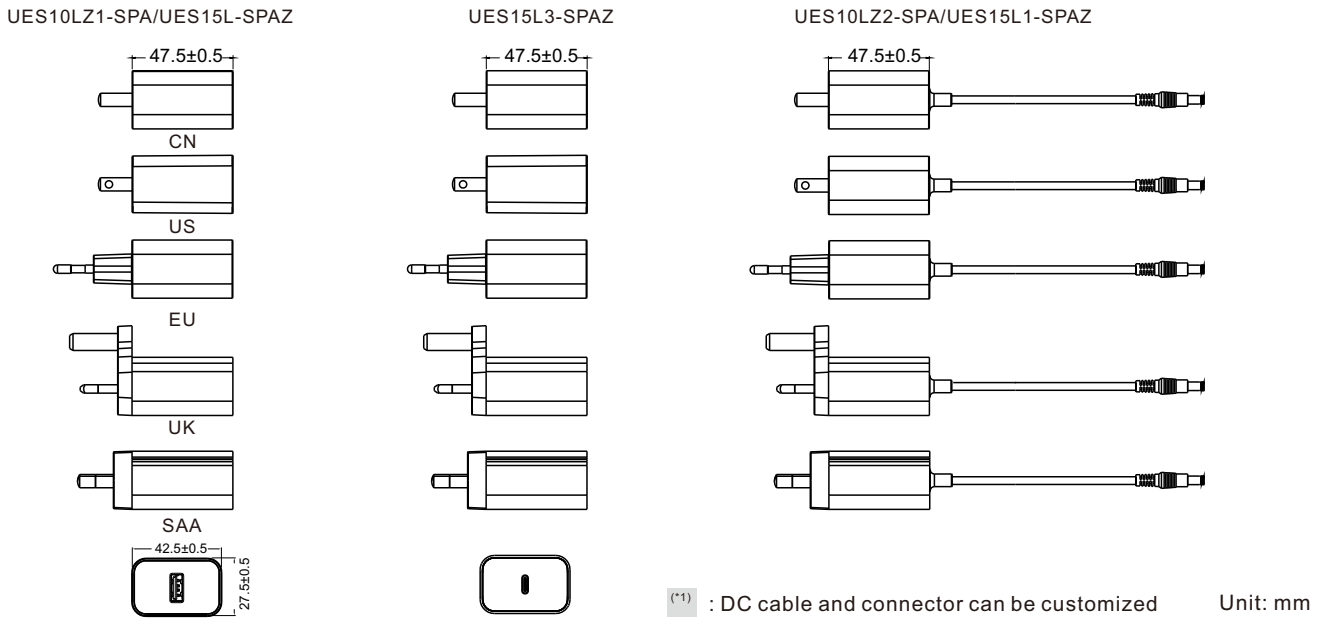
UES15L1-SPAZ

Models & Parameters

Model Number	Voltage	Current	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES10LZ1-SPA UES10LZ2-SPA	5.0	0.01-2.00	10.00W	200mVpk-pk	±5%	Line:±5% Load:±5%	79%	≤3s
UES15L-SPAZ UES15L1-SPAZ UES15L3-SPAZ	5.0	0.01-3.00	15.00W	120mVpk-pk	±5%	Line:±5% Load:±5%	81.84%	≤3s

Model encoding:
Replace "Z" with "C" for fixed CHN AC plug
Replace "Z" with "V" for fixed EU AC plug
Replace "Z" with "U" for fixed US AC plug
Replace "Z" with "B" for fixed UK AC plug

Mechanical Details



Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 10 Watt - UES10LZ1 -SPA
Universal 10 Watt - UES10LZ2 -SPA
Universal 15 Watts - UES15L -SPAZ
Universal 15 Watts - UES15L1 -SPAZ
Universal 15 Watts - UES15L3 -SPAZ

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 100VAC
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	47.5(L) 42.5(W) 27.5(H)mm
Weight	50g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	200%max , auto recovery
Over Voltage	150%max , auto recovery
Short Circuit	Auto recovery

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	-
CQC	GB9706.1	
CE	-	EN62368-1
NRTL	ANSI/AAMI ES60601-1:2005/A2:2021	-
TUV/MARK	EN60601-1	-
CCC	-	GB4943.1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032,CISPR 32
Radiation	IEC/EN60601-1-2,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/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	±1KV line to line (DM)
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

UE Electronic

Switching Power
Wall plug style

Universal 12 Watt - UES12LCP-SPA Series
Universal 12 Watt - UES12LCP-SPC Series

IP20 Class II

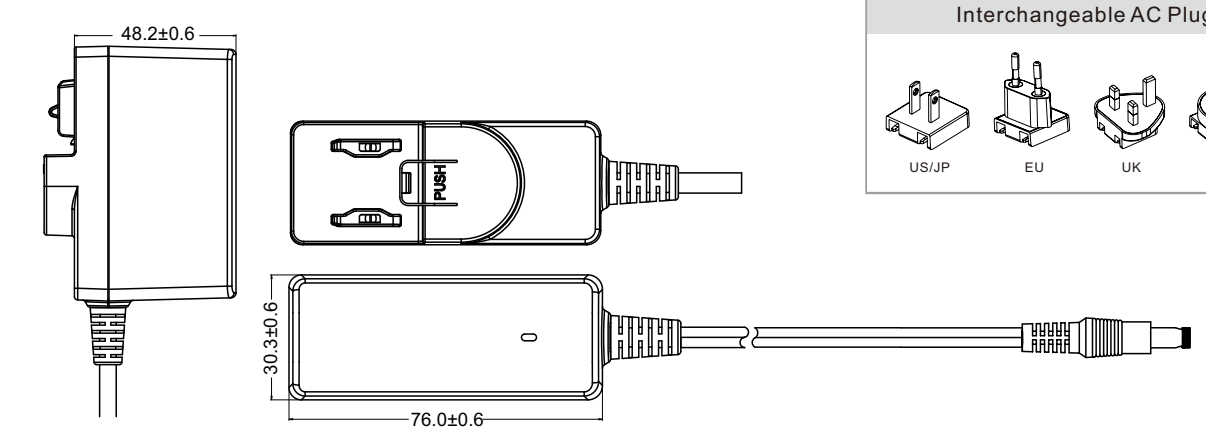
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 10μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 4V-24V outputs, up to 12W
- Up to 5,000m operating altitude
- Interchangeable AC plugs
- UES12LCP-SPC(Lithium-ion battery charger) with LED indicator

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES12LCP-XXXYYYSPA UES12LCP-XXXYYYSPA-OP UES12LCP-XXXYYYSPC UES12LCP-XXXYYYSPC-OP	4.0-5.0	0.01-2.00	10.00W	150mVpk-pk	±7%	Line: ±1% Load: ±5%	79.01%	≤3s
	5.1-6.0	0.01-2.00	12.00W	150mVpk-pk	±7%		80.19%	≤3s
	6.1-7.0	0.01-1.71	11.97W	150mVpk-pk	±7%		83.30%	≤3s
	7.1-8.0	0.01-1.50	12.00W	150mVpk-pk	±7%		83.30%	≤3s
	8.1-9.0	0.01-1.33	11.97W	150mVpk-pk	±5%		83.30%	≤3s
	9.1-10.0	0.01-1.20	12.00W	150mVpk-pk	±5%		83.30%	≤3s
	10.1-11.0	0.01-1.09	11.99W	150mVpk-pk	±5%		83.30%	≤3s
	11.1-12.0	0.01-1.00	12.00W	150mVpk-pk	±5%		83.30%	≤3s
	12.1-13.0	0.01-0.94	12.22W	200mVpk-pk	±5%		83.30%	≤3s
	13.1-14.0	0.01-0.86	12.04W	200mVpk-pk	±5%		83.30%	≤3s
	14.1-15.0	0.01-0.80	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	15.1-16.0	0.01-0.75	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	16.1-17.0	0.01-0.71	12.07W	200mVpk-pk	±5%		83.30%	≤3s
	17.1-18.0	0.01-0.67	12.06W	200mVpk-pk	±5%		83.30%	≤3s
	18.1-19.0	0.01-0.63	11.97W	200mVpk-pk	±5%		83.30%	≤3s
	19.1-20.0	0.01-0.60	12.00W	200mVpk-pk	±5%		83.30%	≤3s
	20.1-21.0	0.01-0.57	11.97W	200mVpk-pk	±5%		83.30%	≤3s
	21.1-22.0	0.01-0.55	12.10W	200mVpk-pk	±5%		83.30%	≤3s
	22.1-23.0	0.01-0.52	11.96W	200mVpk-pk	±5%		83.30%	≤3s
	23.1-24.0	0.01-0.50	12.00W	200mVpk-pk	±5%		83.30%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*2)

DC cable and connector can be customized.

Unit: mm

Notes
(*1, 2) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power
Wall plug style

Universal 12 Watt - UES12LCP-SPA Series
Universal 12 Watt - UES12LCP-SPC Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 90VAC
Inrush Current	50A max at 240VAC cold start
Touch Leakage Current (max)	≤10μA at 264VAC

Environmental

Operating Temperature	-5℃ to 45℃
Storage Temperature	-25℃ to 75℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	76.0(L) 30.3(W) 48.2(H)mm
Weight	120g
MTBF	>100,000hrs Telcordia_SR-332 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	ITE
CB	IEC60601-1	IEC60950-1 IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL60950-1 UL62368-1 CAN/CSA C22.2 NO. 60950-1
TUV Rheinland/Mark	EN60601-1	EN62368-1
TUV Rheinland/GS	-	EN62368-1
RCM	-	AS/NZS 62368.1
CE	-	EN62368
CCC	-	GB4943.1
PSE	-	J62368-1
KC	-	K60950-1
FCC	-	FCC PART 15

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2**	**EN55024, CISPR 24**
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 to line (DM) compatible with ±4KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 18 Watt - UES18LCP-SPA Series
Universal 18 Watt - UES18LCPU-SPA Series

IP20 Class II

Product Features

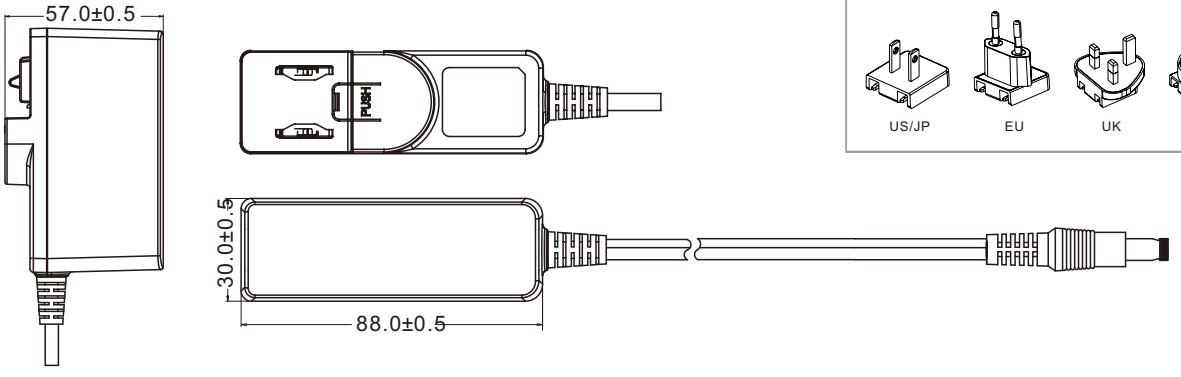
- Medical & I.T.E.safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V-24V outputs, up to 18W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES18LCP-XXXYYYSPA	5.0-6.0	0.01-3.00	18.00W	200mVpk-pk	±6%	Line: ±1% Load: ±5%	81.84% (*2)	≤3s
	6.1-7.0	0.01-2.00	14.00W	200mVpk-pk	±5%		83.36%	≤3s
	7.1-8.0	0.01-2.00	16.00W	200mVpk-pk	±5%		84.21%	≤3s
	8.1-9.0	0.01-2.00	18.00W	200mVpk-pk	±5%		84.91%	≤3s
	9.1-10.0	0.01-1.80	18.00W	200mVpk-pk	±5%		84.97%	≤3s
	10.1-11.0	0.01-1.65	18.00W	200mVpk-pk	±5%		84.96%	≤3s
	11.1-12.0	0.01-1.50	18.00W	200mVpk-pk	±5%		85.05%	≤3s
	12.1-13.0	0.01-1.40	18.00W	200mVpk-pk	±5%		85.14%	≤3s
	13.1-14.0	0.01-1.30	18.00W	200mVpk-pk	±5%		85.17%	≤3s
	14.1-15.0	0.01-1.20	18.00W	200mVpk-pk	±5%		85.14%	≤3s
	15.1-16.0	0.01-1.13	18.00W	200mVpk-pk	±5%		85.18%	≤3s
	16.1-17.0	0.01-1.10	18.00W	200mVpk-pk	±5%		85.37%	≤3s
	17.1-18.0	0.01-1.05	18.00W	200mVpk-pk	±5%		85.19%	≤3s
	18.1-19.0	0.01-0.95	18.00W	200mVpk-pk	±5%		85.22%	≤3s
	19.1-20.0	0.01-0.90	18.00W	200mVpk-pk	±5%		85.22%	≤3s
	20.1-21.0	0.01-0.86	18.00W	200mVpk-pk	±5%		85.25%	≤3s
	21.1-22.0	0.01-0.82	18.00W	200mVpk-pk	±5%		85.25%	≤3s
	22.1-23.0	0.01-0.80	18.00W	200mVpk-pk	±5%		85.36%	≤3s
	23.1-24.0	0.01-0.75	18.00W	200mVpk-pk	±5%		85.26%	≤3s
UES18LCPU-XXXYYYSPA	5.0	0.01-3.00	15.00W	200mVpk-pk	±6%		81.84% (*2)	≤3s

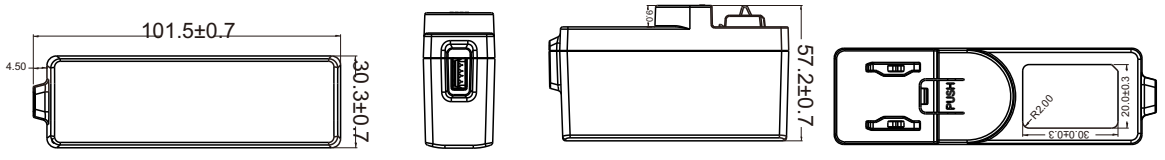
Mechanical Details

UES18LCP-XXXYYYSPA



Interchangeable AC Plug Options (*3)

UES18LCPU-XXXYYYSPA



DC cable and connector can be customized.

Unit: mm

Notes
(*1, 3) Other options are available, please contact our sales representative for details.
(*2) Meets energy efficiency level V only.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 18 Watt - UES18LCP-SPA Series
Universal 18 Watt - UES18LCPU-SPA Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	88.0(L) 30.0(W) 57.0(H)mm(UES18LCP)
	101.5(L) 30.0(W) 57.0(H)mm(UES18LCPU)
Weight	140g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	120-150% 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
CB	IEC60601-1	IEC60950-1 IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL60950-1 UL62368-1 CAN/CSA C22.2 NO. 60950-1
TüV Rheinland/Mark	EN60601-1	-
TüV Rheinland/GS	-	EN62368-1
RCM	-	AS/NZS 62368-1
CE	-	EN62368
CCC	-	GB4943.1
KC	-	K60950-1
FCC	-	FCC PART 15
PSE	-	J62368

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2**	**EN55035, CISPR 35**
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m, 3V/m 80MHz - 2700MHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±2KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 24 Watt - UES24LCP-SPA Series

IP20 Class II

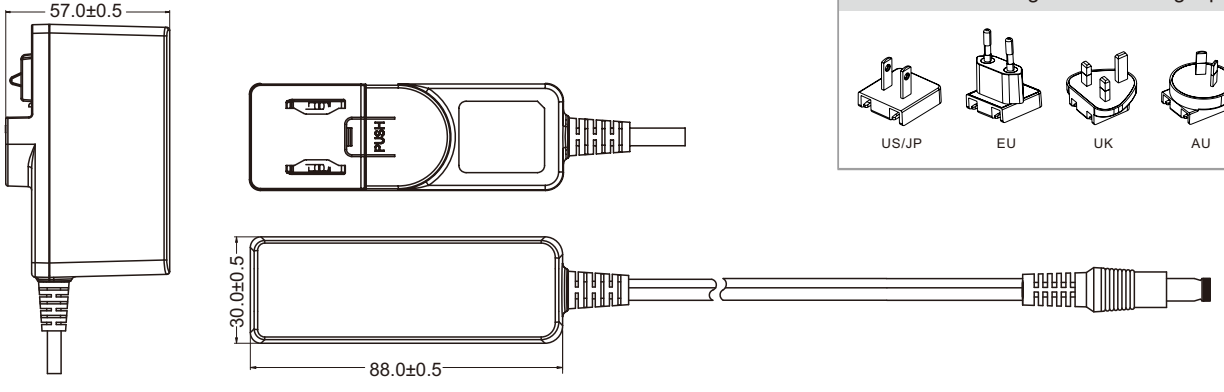
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 6.1V-52V outputs, up to 24W
- Up to 5,000m operating altitude
- Interchangeable AC plugs

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES24LCP-XXXYYYSPA UES24LCP-XXXYYYSPA-OP	6.1-7.0	0.01-3.00	21.00W	120mVpk-pk	±5%	Line: ±1% Load: ±5%	86.2%	≤3s
	7.1-8.0	0.01-2.62	21.00W	120mVpk-pk	±5%		86.2%	≤3s
	8.1-9.0	0.01-2.33	21.00W	150mVpk-pk	±5%		86.2%	≤3s
	9.1-10.0	0.01-2.10	21.00W	150mVpk-pk	±5%		86.2%	≤3s
	10.1-11.0	0.01-2.18	24.00W	150mVpk-pk	±5%		87.0%	≤3s
	11.1-12.0	0.01-2.00	24.00W	150mVpk-pk	±5%		87.0%	≤3s
	12.1-13.0	0.01-1.84	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	13.1-14.0	0.01-1.71	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	14.1-15.0	0.01-1.60	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	15.1-16.0	0.01-1.50	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	16.1-17.0	0.01-1.41	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	17.1-18.0	0.01-1.33	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	18.1-19.0	0.01-1.26	24.00W	200mVpk-pk	±5%		87.0%	≤3s
	19.1-20.0	0.01-1.20	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	20.1-21.0	0.01-1.14	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	21.1-22.0	0.01-1.09	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	22.1-23.0	0.01-1.04	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	23.1-24.0	0.01-1.00	24.00W	240mVpk-pk	±5%		87.0%	≤3s
	45.1-46.0	0.01-0.52	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	46.1-47.0	0.01-0.51	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	47.1-48.0	0.01-0.50	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	48.1-49.0	0.01-0.48	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	49.1-50.0	0.01-0.48	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	50.1-51.0	0.01-0.47	24.00W	300mVpk-pk	±5%		87.0%	≤3s
	51.1-52.0	0.01-0.46	24.00W	300mVpk-pk	±5%		87.0%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*2)

DC cable and connector can be customized.

Unit: mm

Notes
(*1, 2) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 24 Watt - UES24LCP-SPA Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	88.0(L) 30.0(W) 57.0(H)mm
Weight	170g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-200% 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	ITE
CB	IEC60601-1	IEC60950-1 IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	UL60950-1 UL62368-1 CAN/CSA C22.2 NO. 60950-1
TUV Rheinland/Mark	EN60601-1	-
TUV Rheinland/GS	-	EN62368-1
RCM	-	AS/NZS 62368.1
CE	-	EN62368
CCC	-	GB4943.1
PSE	-	J62368
KC	-	K60950-1
FCC	-	FCC PART 15
BIS	-	IEC60950-1

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2**	**EN55024, CISPR 24**
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	±1KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 24 Watt - UES24LZ5-SPA Series

Class II

Product Features

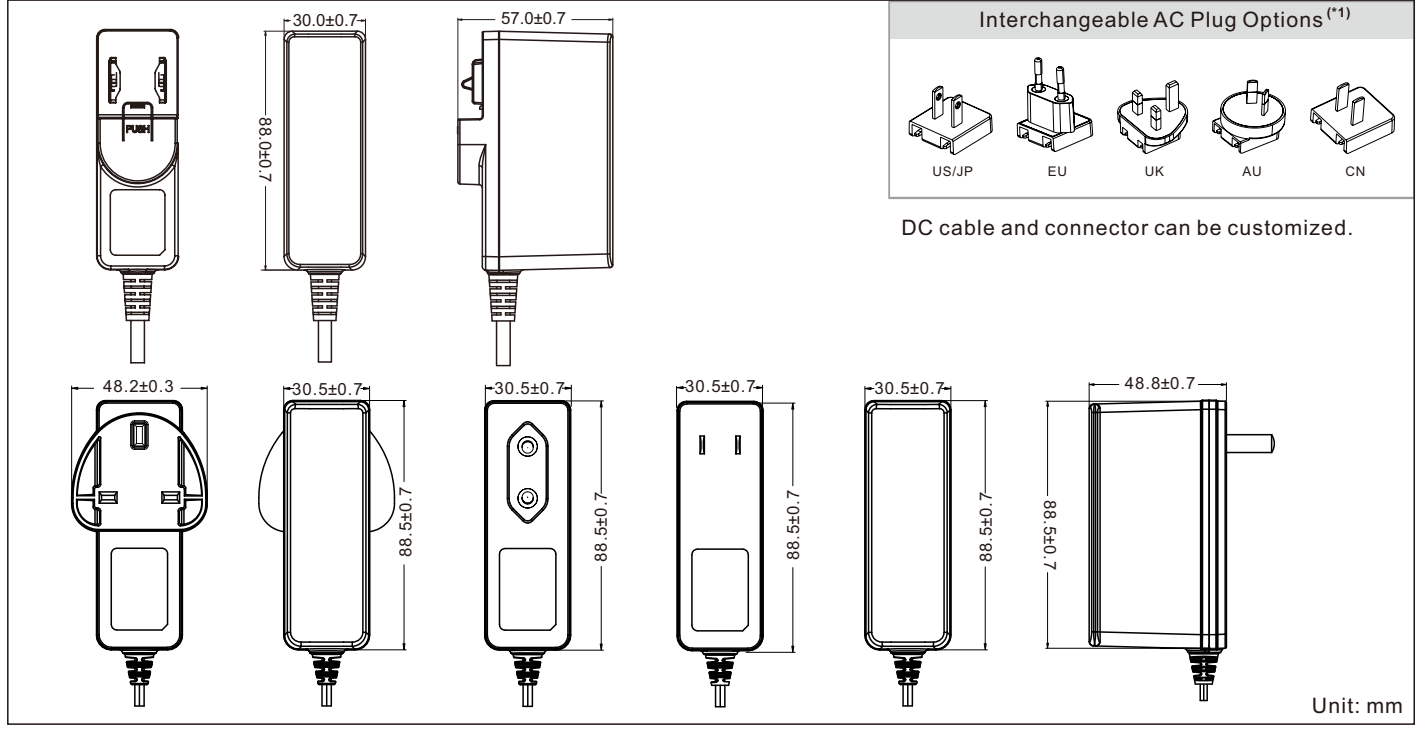
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V-24V outputs, up to 24W
- Up to 5,000m operating altitude
- Optional fixed plug /interchangeable plug design
- IP22 for fixed plug design/IP20 for interchangeable plug design

Models & Parameters

Model Number	Voltage(*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES24LZ5-XXXYYYSPA	5.0-5.9	0.01-3.00	17.70W	120mVpk-pk	±5%	Line:±1% Load: ±5%	83.0%	≤3s
	6.0-7.5	0.01-3.00	22.50W	120mVpk-pk	±5%		86.6%	≤3s
	7.6-8.0	0.01-2.62	21.00W	120mVpk-pk	±5%		86.2%	≤3s
	8.1-8.9	0.01-2.36	21.00W	150mVpk-pk	±5%		86.2%	≤3s
	9.0-10.0	0.01-2.40	24.00W	150mVpk-pk	±5%		86.8%	≤3s
	10.1-11.0	0.01-2.18	24.00W	150mVpk-pk	±5%		86.8%	≤3s
	11.1-12.0	0.01-2.00	24.00W	150mVpk-pk	±5%		86.8%	≤3s
	12.1-13.0	0.01-1.84	24.00W	200mVpk-pk	±5%		86.8%	≤3s
	13.1-14.0	0.01-1.71	24.00W	200mVpk-pk	±5%		86.8%	≤3s
	14.1-15.0	0.01-1.60	24.00W	200mVpk-pk	±5%		86.8%	≤3s
	19.0-20.0	0.01-1.20	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	20.1-21.0	0.01-1.14	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	21.1-22.0	0.01-1.09	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	22.1-23.0	0.01-1.04	24.00W	240mVpk-pk	±5%		86.8%	≤3s
	23.1-24.0	0.01-1.00	24.00W	240mVpk-pk	±5%		86.8%	≤3s

Model encoding:
Replace "Z" with "C" for fixed CN AC plug
Replace "Z" with "V" for fixed EU AC plug
Replace "Z" with "U" for fixed US AC plug
Replace "Z" with "B" for fixed UK AC plug
Replace "Z" with "CP" for changeable AC plug

Mechanical Details



Interchangeable AC Plug Options (*1)

DC cable and connector can be customized.

Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 24 Watt - UES24LZ5-SPA Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.7A at 100VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	88(L) 30.0(W) 48.8(H)mm/fixed plug
	88(L) 30.(W) 57(H)mm/interchangeable plug
Weight	140g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-200% rated output power, auto recovery
Over Voltage	110-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	IEC62368-1
UL	ANSI/AAMI ES60601-1	-
	CAN/CSA C22.2 NO. 60601-1	-
TUV Mark	EN60601-1	EN62368-1
CCC	-	GB4943.1
PSE	-	J62368
KC	-	K62368-1
RCM	-	AS/NZS 62368.1
FCC	-	FCC PART 15
	-	

EMC

Emission	Medical		ITE
Conduction	IEC/EN60601-1-2,CISPR 11		EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2**		**EN55035, CISPR 35**
ESD	IEC61000-4-2	±15KV air, ±8KV contact	
Radiated Immunity	IEC61000-4-3	10V/m ,3V/m 80MHz - 2.7GHz	
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports	
Surge	IEC61000-4-5	±1KV line to line (DM)	
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 36 Watt - UES36LCP2-SPA Series

IP 20 Class II VI

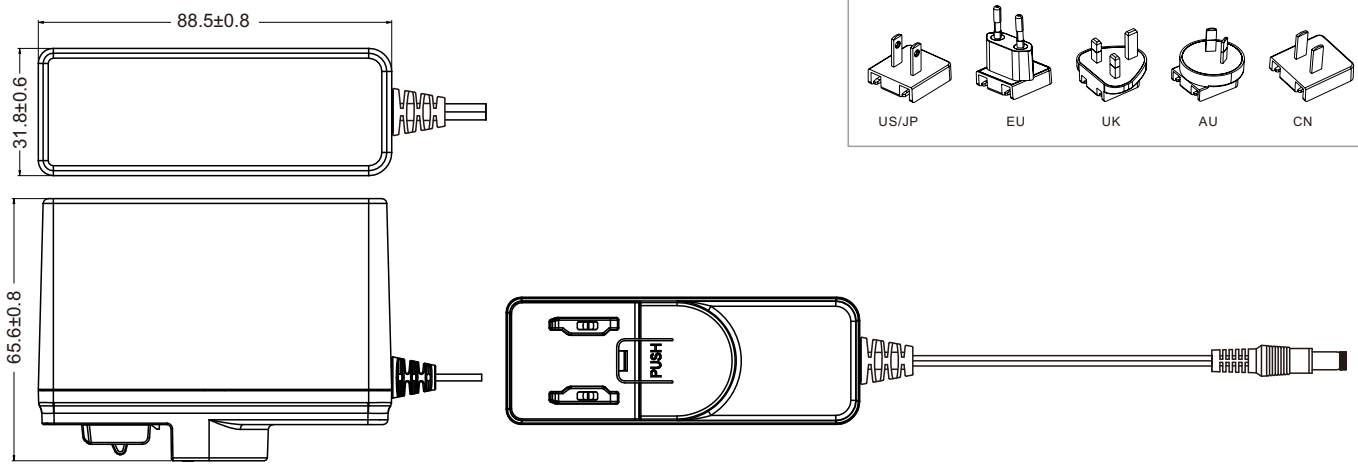
Product Features

- Medical & ITE safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 5V to 48V outputs, up to 36W
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage (V)	Current (A)	Rated Power (max)	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay (@115V&230V)
UES36LCP2-XXXYYYSPA	5.0	0.01-6.00	30.0W	200mVpk-pk	±8%	Line: ±1% Load: ±5%	85.00%	≤3s
	5.1-5.9	0.01-5.00	30.0W	200mVpk-pk	±5%		88.30%	≤3s
	7.5-14.0	0.01-4.00	36.0W	200mVpk-pk	±5%		88.30%	≤3s
	14.1-21.0	0.01-2.40	36.0W	200mVpk-pk	±5%		88.30%	≤3s
	21.1-30.0	0.01-1.63	36.0W	200mVpk-pk	±5%		88.30%	≤3s
	30.1-48.0	0.01-1.16	36.0W	300mVpk-pk	±5%		88.30%	≤3s

Mechanical Details



Interchangeable AC Plug Options

Unit: mm

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.0A at 90VAC
Inrush Current	70A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	88.5(L) 31.8(W) 65.6(H)mm
Weight	210g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃
Isolation	4,000VAC Input to Output

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	ITE
CB	IEC60601-1 ANSI/AAMI ES60601-1	IEC62368-1
UL	CAN/CSA-C22.2 NO. 60601-1	UL62368-1
TUV Rheinland/Mark	EN60601-1	-
TUV Rheinland/GS	-	EN62368-1
CE	-	EN62368-1
FCC	-	FCC PART 15
HK S Mark	-	IEC62368-1
CCC	-	GB4943.1
KC	-	K62368-1

EMC

Emissons	Medical	ITE
Conducted	IEC/EN 60601-1-2,CISPR 11	EN55032, CISPR32
Radiated	IEC/EN 60601-1-2,CISPR 11	EN55032, CISPR32
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 - 2700MHz
EFT/Burst	EN61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge (*6)	EN61000-4-5	±4KV 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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 36 Watt - UES36WZ1-SPA Series

IP20 Class II

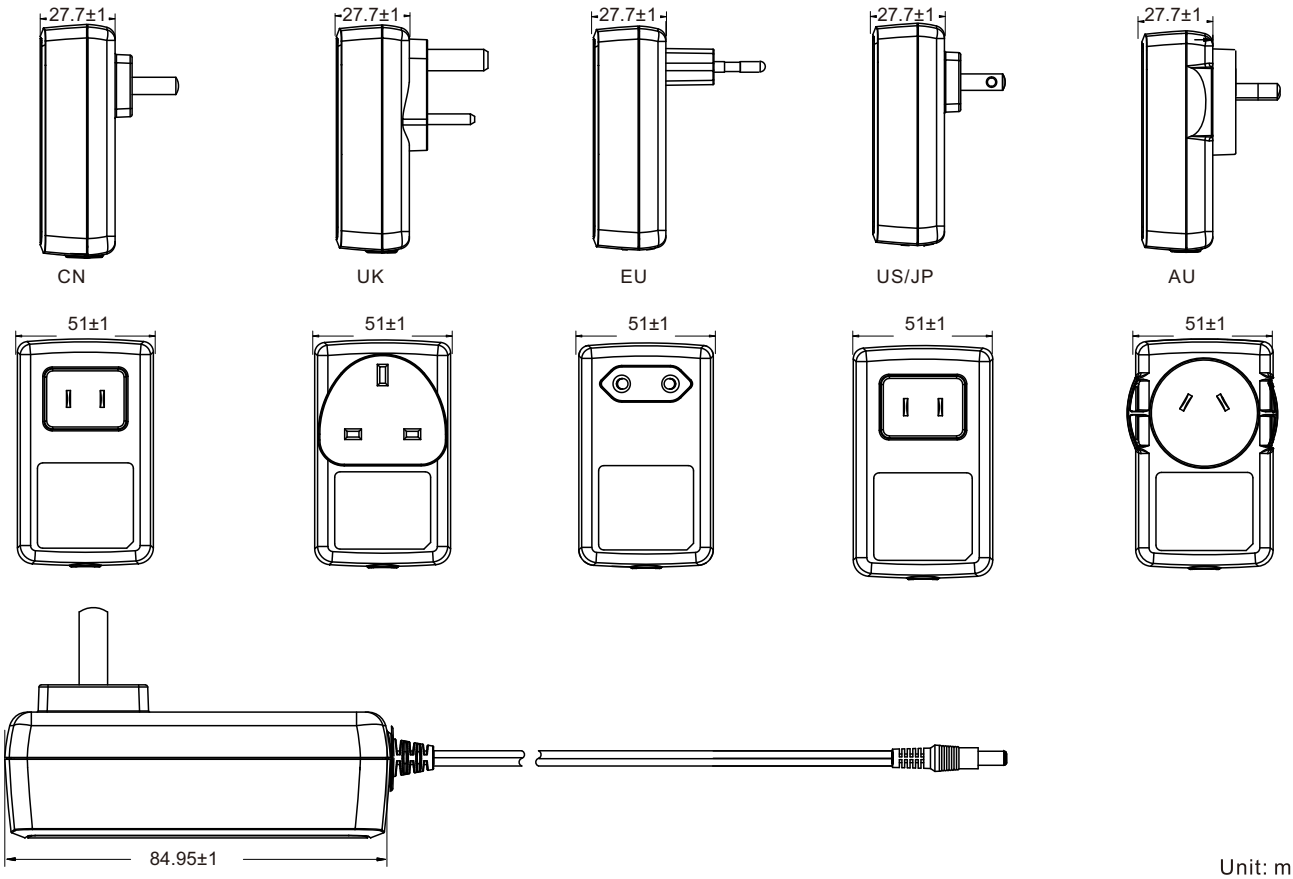
Product Features

- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.075W standby power
- 12.0V or 24.0V outputs, up to 36W
- Up to 5,000m operating altitude

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
UES36WZ1-XXXYYYSPA	12.0V	0.01-3.00	36.00W	120mVpk-pk	±5%	Line: ±3% Load: ±5%	88.3%	≤3s
	19.0V	0.01-1.89	36.00W	240mVpk-pk	±5%		88.3%	≤3s
	24.0V	0.01-1.50	36.00W	240mVpk-pk	±5%		88.3%	≤3s

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.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 36 Watt - UES36WZ1-SPA Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	0.5A at 90VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	84.95(L) 51(W) 27.7(H)mm
Weight	155g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-200% 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	ITE
CCC	-	GB4943.1
CB	IEC60601-1	-
TUV SUD/Mark	EN60601-1	-
FCC	-	FCC PART 15
NRTL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	-

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/EN60601-1-2**	**EN55035, CISPR 35**
ESD	IEC61000-4-2	±15KV air, ±8KV contact
Radiated Immunity	IEC61000-4-3	10V/m, 3V/m 80MHz - 2700MHz
EFT/Burst	IEC61000-4-4	±2KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	±6KV line to line (DM)
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 48 Watt - UES48LCP-SPA Series

Class II ⓥⅠ

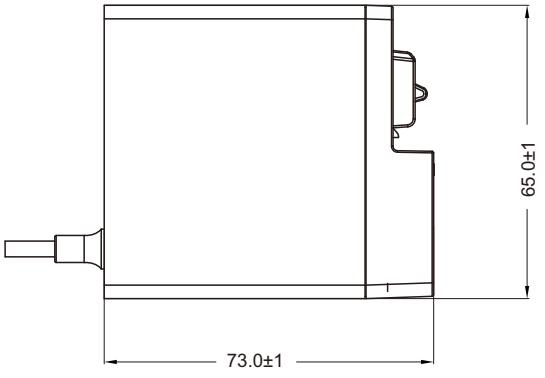
Product Features

- Medical safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Up to 5,000m operating altitude
- Energy efficiency level VI
- ≤ 0.1W standby power

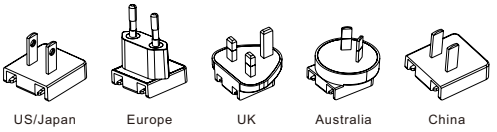
Models & Ratings

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES48LCP-XXXYYYSPA	12.0-13.0	0.01-4.00	48.00W	200mV	±5%	Line: ±2% Load: ±5%	87.77%	≤3s
	13.1-14.0	0.01-3.43	48.00W	200mV	±5%		87.77%	≤3s
	14.1-15.0	0.01-3.20	48.00W	200mV	±5%		87.77%	≤3s
	18.0-19.0	0.01-2.53	48.00W	200mV	±5%		87.77%	≤3s
	19.1-20.0	0.01-2.40	48.00W	200mV	±5%		87.77%	≤3s
	20.1-21.0	0.01-2.28	48.00W	200mV	±5%		87.77%	≤3s
	21.1-22.0	0.01-2.18	48.00W	240mV	±5%		87.77%	≤3s
	22.1-23.0	0.01-2.08	48.00W	240mV	±5%		87.77%	≤3s
	23.1-24.0	0.01-2.00	48.00W	240mV	±5%		87.77%	≤3s

Mechanical Details



Interchangeable AC Plug Options (*2)



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.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 48 Watt - UES48LCP-SPA Series

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.3A 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	-40℃ to 80℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	73.0(L) 65.0(W) 30.0(H)mm
Weight	205g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃
Isolation	5,656VDC Input to Output

Protection

Overload	110-160% rated output power, auto recovery
Over Voltage	Min 120% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical(meet)
CB	IEC60601-1
TUV SuD/mark	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	±2KV line to line ,±4KV line to GND
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

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 48 Watt - UES48LZ-SPA

Class I I

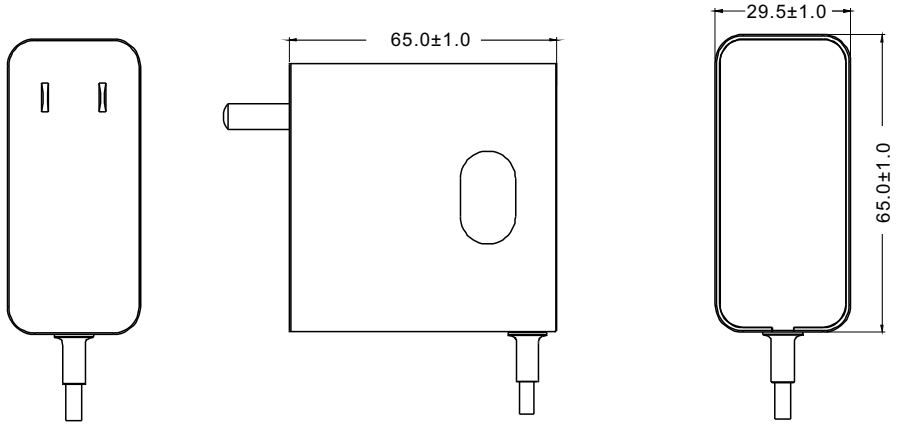
Product Features

- Medical & I.T.E & household safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Up to 5,000m operating altitude

Models & Ratings

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES48LC-120400SPA	12.0	0.01-4.00	48W	200mV	±5%	Line: ±2% Load: ±5%	87.76%	≤3s

Mechanical Details



Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Wall plug style

Universal 48 Watt - UES48LZ-SPA

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.3A at 90VAC
Inrush Current	100A max at 240VAC cold start
Touch Leakage Current (max)	≤ 100μA at 264VAC

Environmental

Operating Temperature	0℃ to 25℃
Storage Temperature	-40℃ to 80℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	65.0(L) 65.0(W) 29.5(H)mm
Weight	205g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃
Isolation	5,656VDC Input to Output

Protection

Overload	110-160% rated output power, auto recovery
Over Voltage	Min 120% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	Household
CB	IEC60601-1	-
NRTL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	-
FCC	FCC PART 15	-
CQC	-	GB4706
PSE		J61558

EMC

Emissons	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 ,±4KV line to GND
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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 48 Watt - UES48DZ-SPA

Class I & II

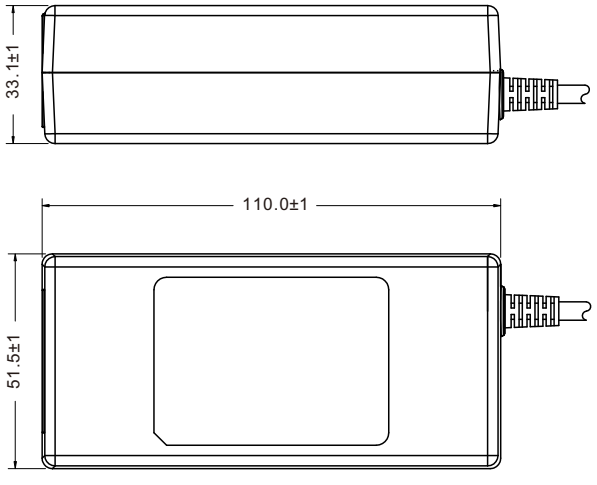
Product Features

- Medical safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Up to 5,000m operating altitude
- Energy efficiency level VI
- ≤ 0.1W standby power

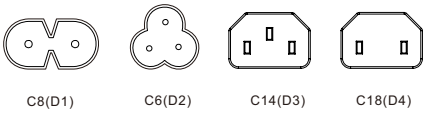
Models & Ratings

Model Number	Voltage(*1)	Current	Rated Power	Ripple & Noise (max)(*2)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES48DZ-XXXYYYSPA	9.0-10.0	0.01-4.00	40.00W	200mV	±5%	Line: ±2% Load: ±5%	87.60%	≤3s
	10.1-11.0	0.01-4.00	44.00W	200mV	±5%		87.70%	≤3s
	11.1-12.0	0.01-4.00	48.00W	200mV	±5%		87.77%	≤3s
	12.1-13.0	0.01-3.96	48.00W	200mV	±5%		87.77%	≤3s
	13.1-14.0	0.01-3.66	48.00W	200mV	±5%		87.77%	≤3s
	14.1-15.0	0.01-3.40	48.00W	200mV	±5%		87.77%	≤3s
	18.0-19.0	0.01-2.67	48.00W	200mV	±5%		87.77%	≤3s
	19.1-20.0	0.01-2.52	48.00W	200mV	±5%		87.77%	≤3s
	20.1-21.0	0.01-2.40	48.00W	200mV	±5%		87.77%	≤3s
	21.1-22.0	0.01-2.29	48.00W	240mV	±5%		87.77%	≤3s
	22.1-23.0	0.01-2.18	48.00W	240mV	±5%		87.77%	≤3s
	23.1-24.0	0.01-2.00	48.00W	240mV	±5%		87.77%	≤3s
	28.0-29.0	0.01-1.71	48.00W	300mV	±5%		87.77%	≤3s
	29.1-30.0	0.01-1.64	48.00W	300mV	±5%		87.77%	≤3s
	30.1-31.0	0.01-1.59	48.00W	300mV	±5%		87.77%	≤3s
	31.1-32.0	0.01-1.55	48.00W	300mV	±5%		87.77%	≤3s
	32.1-33.0	0.01-1.50	48.00W	300mV	±5%		87.77%	≤3s
	33.1-34.0	0.01-1.45	48.00W	300mV	±5%		87.77%	≤3s
	34.1-35.0	0.01-1.41	48.00W	350mV	±5%		87.77%	≤3s
	35.1-36.0	0.01-1.33	48.00W	350mV	±5%		87.77%	≤3s

Mechanical Details



Interchangeable AC Plug Options



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.

UE Electronic

Switching Power Adaptor
Desktop style

Universal 48 Watt - UES48DZ-SPA

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.3A 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	-40℃ to 80℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	110.0(L) 51.5(W) 33.1(H)mm
Weight	205g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃
Isolation	5,656VDC Input to Output

Protection

Overload	110-160% rated output power, auto recovery
Over Voltage	Min 120% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	IEC62368-1
Tuv SuD/mark	EN60601-1	-
Tuv SuD NRTL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO. 60601-1	-
Tuv SuD PSE	-	J62368-1
CE	-	EN62368-1

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 ,±2KV line to GND
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

UE Electronic

Switching Power Adaptor
Desktop style

Universal 65 Watt - UES65B1-SPA

IP 20 Class II

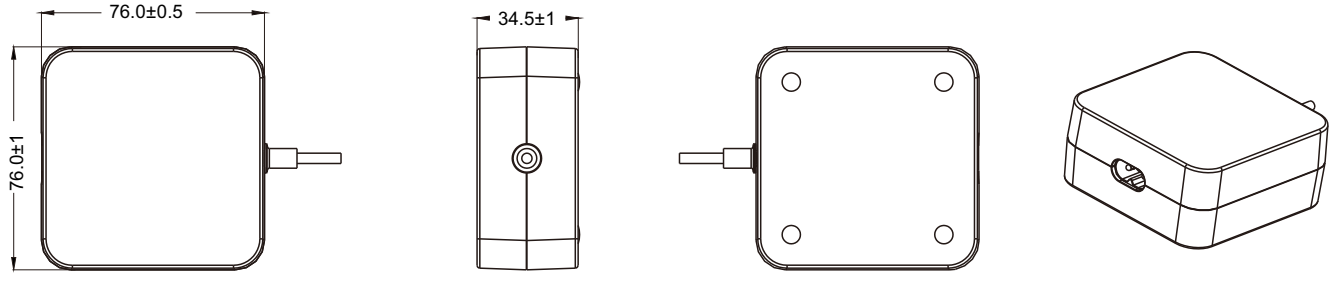
Product Features

- Medical & household safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.15W standby power
- 11V to 24V outputs, up to 65W

Models & Parameters

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES65B1-XXXYYYSPA	11.0-12.0	0.01-5.00	60.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	88.0%	≤3s
	12.1-13.0	0.01-4.61	60.00W	200mVpk-pk	±5%		88.0%	≤3s
	13.1-14.0	0.01-4.28	60.00W	200mVpk-pk	±5%		88.0%	≤3s
	14.1-15.0	0.01-4.00	60.00W	200mVpk-pk	±5%		88.0%	≤3s
	15.1-16.0	0.01-3.75	60.00W	200mVpk-pk	±5%		88.0%	≤3s
	16.1-17.0	0.01-3.52	60.00W	200mVpk-pk	±5%		88.0%	≤3s
	17.1-18.0	0.01-3.33	60.00W	200mVpk-pk	±5%		88.0%	≤3s
	19.0	0.01-3.42	65.00W	240mVpk-pk	±5%		88.0%	≤3s
	19.1-20.0	0.01-3.25	65.00W	240mVpk-pk	±5%		88.0%	≤3s
	20.1-21.0	0.01-3.09	65.00W	240mVpk-pk	±5%		88.0%	≤3s
	21.1-22.0	0.01-2.95	65.00W	240mVpk-pk	±5%		88.0%	≤3s
	22.1-23.0	0.01-2.82	65.00W	240mVpk-pk	±5%		88.0%	≤3s
	23.1-24.0	0.01-2.71	65.00W	240mVpk-pk	±5%		88.0%	≤3s

Mechanical Details



Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Desktop style

Universal 65 Watt - UES65B1-SPA

Input

Input Voltage Range	90-264VAC
Frequency Range	47-63Hz
Input Current	1.5A at 100VAC
Inrush Current	140A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	76.0(L) 76.0(W) 34.5(H)mm
Weight	260g
MTBF	>50,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	110-220% rated output power, auto recovery
Over Voltage	110-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	Household
CB	IEC60601-1	IEC61558-1
PSE	-	J61558-1
NRTL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO.60601-1	-
TUV-SUD/MARK	EN60601-1	-

EMC

Emission	Medical	HOUS
Conduction	IEC/EN60601-1-2,CISPR 11	EN55014
Radiation	IEC/EN60601-1-2,CISPR 11	EN55014
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**	**EN55024**
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	±1KV on AC port, ±1KV on signal ports
Surge	IEC61000-4-5	1KV line to line (DM)
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	100M Ohms, 500VDC input to output

UE Electronic

Switching Power Adaptor
Desktop style

Universal 65 Watt - UES65CZ-SPA Series

IP22 Class I & II

Product Features

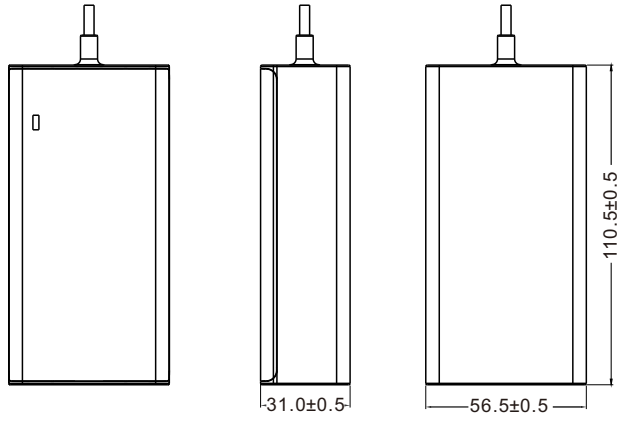
- Meet medical safety approvals
- 2 MOPP input to output isolation
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.15W standby power
- Peak load: 140W MAX @Rated Input Voltage
- Up to 5,000m operating altitude

Models & Ratings

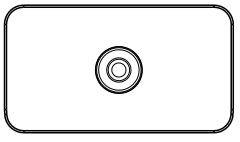
Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES65CZ-XXXYYYSPA	12.0	0.01-5.0	60W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	88.0%	≤3s
	12.1-13.0	0.01-4.61	60W	200mVpk-pk	±5%		88.0%	≤3s
	13.1-14.0	0.01-4.28	60W	200mVpk-pk	±5%		88.0%	≤3s
	14.1-15.0	0.01-4.00	60W	200mVpk-pk	±5%		88.0%	≤3s
	19.0	0.01-3.42	65W	200mVpk-pk	±5%		88.0%	≤3s
	19.1-20.0	0.01-3.25	65W	240mVpk-pk	±5%		88.0%	≤3s
	20.1-21.0	0.01-3.09	65W	240mVpk-pk	±5%		88.0%	≤3s
	21.1-22.0	0.01-2.95	65W	240mVpk-pk	±5%		88.0%	≤3s
	22.1-23.0	0.01-2.81	65W	240mVpk-pk	±5%		88.0%	≤3s
	23.1-24.0	0.01-2.71	65W	240mVpk-pk	±5%		88.0%	≤3s

Model encoding: replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I) ,"4" for C18 (Class I)AC inlets

Mechanical Details



Interchangeable AC Plug Options



Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Desktop style

Universal 65 Watt - UES65CZ-SPA Series

Input

Input Voltage Range	80-264VAC(80-90VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	1.8A at 90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(40℃ to 70℃ refer to derating curve)
Storage Temperature	-40℃ to 85℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	110.5(L) 56.5(W) 31.0(H)mm
Power density	0.335W/cm³
Weight	260g
MTBF	>500,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	220-330% rated output power, auto recovery
Over Voltage	110-145% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

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

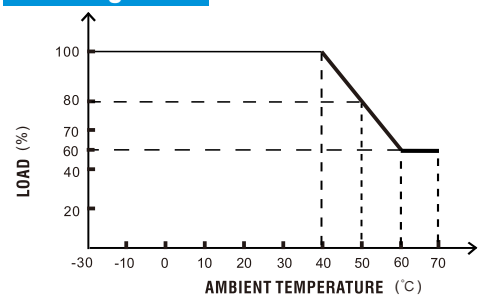
EMC

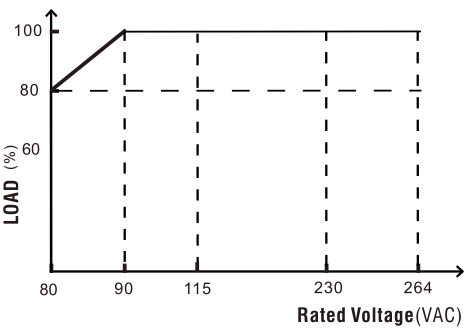
Emissons	Medical	
Conducted	IEC/EN 60601-1-2,CISPR 11	
Radiated	IEC/EN 60601-1-2,CISPR 11	
Harmonic Currents	EN61000-3-2, Class A	
Voltage Flicker	EN61000-3-3	
Immunity	**IEC/EN 60601-1-2**	
ESD	EN61000-4-2	±15kV air, ±8kV contact
Radiated Immunity	EN61000-4-3	10V/m ,3V/m 80MHz - 2.7GMHz
EFT/Burst	EN61000-4-4	±2kV on AC port, ±1kV on signal ports
Surge	EN61000-4-5	±1KV line to line (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

Derating Curve





UE Electronic

Switching Power Adaptor
Desktop style

Universal 90 Watt - UES90C-SPAZ Series

IP42 Class I & II

Product Features

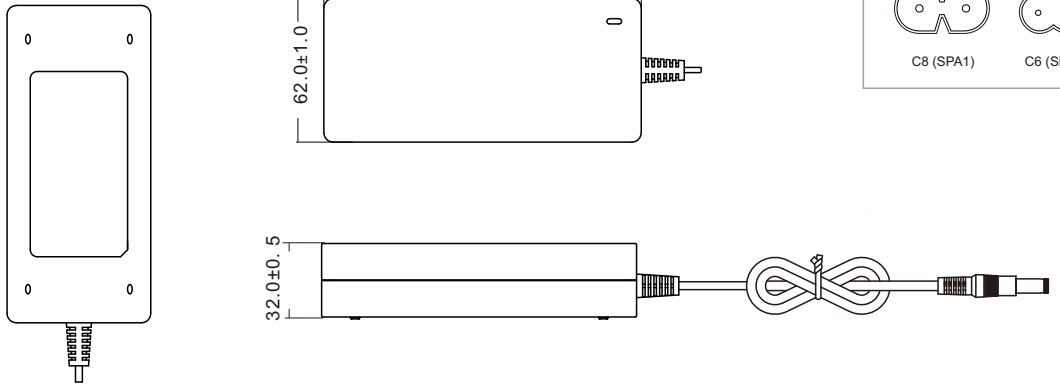
- Medical safety approvals
- 2 MOPP input to output isolation
- PF>0.90@230Vac full load
- Leakage current ≤ 100μA
- Energy efficiency level VII
- ≤ 0.15W standby power
- Peak load: 168W MAX @ Rated Input Voltage
- Up to 5,000m operating altitude
- 11V to 54V outputs, up to 90W

Models & Ratings

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES90C-XXXYYYSPAZ	11.0	0.01-7.00	77.00W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	88.00% (*2)	≤3s
	12.0	0.01-7.00	84.00W	150mVpk-pk	±5%		89.00%	≤3s
	15.0	0.01-6.00	90.00W	180mVpk-pk	±5%		89.00%	≤3s
	17.0	0.01-5.29	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	19.0	0.01-4.74	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	22.0	0.01-4.09	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	24.0	0.01-3.75	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	26.0	0.01-3.46	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	30.0	0.01-3.00	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	33.0	0.01-2.73	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	36.0	0.01-2.50	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	39.0	0.01-2.31	90.00W	200mVpk-pk	±5%		89.00%	≤3s
	43.0	0.01-2.09	90.00W	300mVpk-pk	±5%		89.00%	≤3s
	46.0	0.01-1.95	90.00W	300mVpk-pk	±5%		89.00%	≤3s
	48.0	0.01-1.88	90.00W	300mVpk-pk	±5%		89.00%	≤3s
	52.0	0.01-1.73	90.00W	300mVpk-pk	±5%		89.00%	≤3s
	54.0	0.01-1.67	90.00W	300mVpk-pk	±5%		89.00%	≤3s

Model encoding: replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I), "4" for C18 (Class II) AC inlets

Mechanical Details



Interchangeable AC Plug Options

Unit: mm

DC cable and connector can be customized.

Notes
(*1) Other options are available, please contact our sales representative for details.
(*2) Meet energy efficiency level VI only.

UE Electronic

Switching Power Adaptor
Desktop style

Universal 90 Watt - UES90C-SPAZ Series

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	1.5A at 80VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current	≤100μA at 264VAC

Environmental

Operating Temperature	0℃ to 40℃
Storage Temperature	-20℃ to 60℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 90% RH
Operating Altitude	5,000m

General

Dimensions	137.0(L) 62.0(W) 32.0(H)mm
Weight	300g
MTBF	>100,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	105-200% rated output power
Over Voltage	110-200% rated output voltage
Short Circuit	No damage

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1/IEC60601-1-11	EN62368-1
UL	ANSI/AAMI ES60601-1/60601-1-11 CAN/CSA-C22.2 NO. 60601-1	UL62368-1
TUV GS/Mark	(pending)	EN62368-1
CCC	-	GB4943.1
NRTL	ANSI/AAMI ES60601-1 CAN/CSA C22.2 NO.60601-1	-
CE	-	EN62368-1
FCC	-	FCC PART 15

EMC

Emission	Medical	ITE
Conduction	IEC/EN60601-1-2,CISPR 11	EN55032, CISPR 32
Radiation	IEC/EN60601-1-2,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/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
Surge	IEC61000-4-5	±2KV line to line (DM)
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	100M Ohms, 500VDC input to output

UE Electronic

Switching Power Adaptor
Desktop style

Universal 100 Watt - UES100DZ-SPA Series

IP22 Class I & II

Product Features

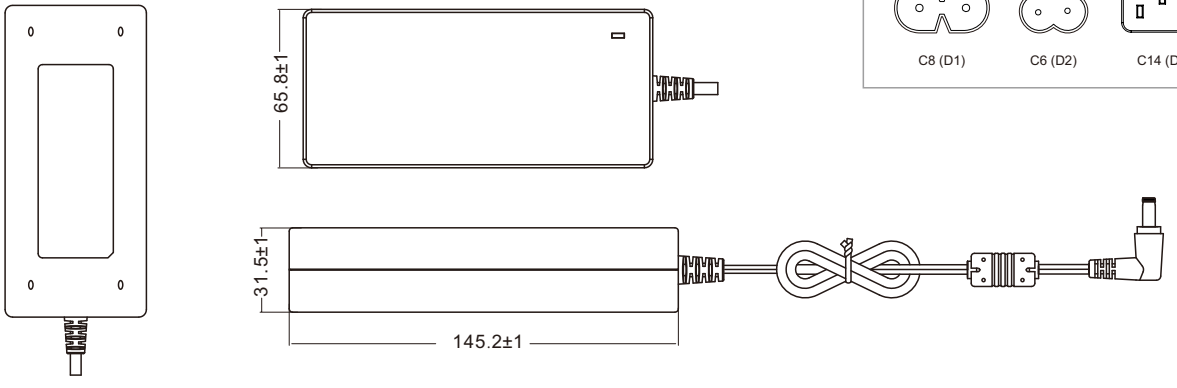
- Medical & I.T.E safety approvals
- 2 MOPP input to output isolation
- PF>0.90@230Vac full load
- Leakage current ≤ 100μA
- Energy efficiency level VI
- ≤ 0.21W standby power
- Peak load: 216W MAX @ Rated Input Voltage
- Up to 5,000m operating altitude

Models & Ratings

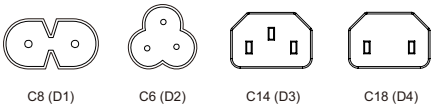
Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UES100DZ-XXXYYYSPA	12.0	0.01-7.50	90.00W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	88.00%	≤3s
	12.1-13.0	0.01-6.92	90.00W	150mVpk-pk	±5%		88.00%	≤3s
	13.1-14.0	0.01-6.43	90.00W	150mVpk-pk	±5%		88.00%	≤3s
	14.1-15.0	0.01-6.00	90.00W	200mVpk-pk	±5%		88.00%	≤3s
	19.0	0.01-5.00	95.00W	200mVpk-pk	±5%		88.00%	≤3s
	19.1-20.0	0.01-5.00	100.00W	200mVpk-pk	±5%		88.00%	≤3s
	20.1-21.0	0.01-4.76	100.00W	300mVpk-pk	±5%		88.00%	≤3s
	21.1-22.0	0.01-4.54	100.00W	300mVpk-pk	±5%		88.00%	≤3s
	22.1-23.0	0.01-4.35	100.00W	300mVpk-pk	±5%		88.00%	≤3s
	23.1-24.0	0.01-4.17	100.00W	300mVpk-pk	±5%		88.00%	≤3s

Model encoding: replace "Z" with "1" for C8 (Class II), "2" for C6 (Class I), "3" for C14 (Class I), "4" for C18 (Class II) AC inlets

Mechanical Details



Interchangeable AC Plug Options



Unit: mm

DC cable and connector can be customized.

Notes
(*1) Other options are available, please contact our sales representative for details.

UE Electronic

Switching Power Adaptor
Desktop style

Universal 100 Watt - UES100DZ-SPA Series

Input

Input Voltage Range	80-264VAC(80-90VAC refer to derating curve)
Frequency Range	47-63Hz
Input Current	2.5A at 90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current (max)	≤100μA at 264VAC

Environmental

Operating Temperature	-30℃ to 70℃(40℃ to 70℃ refer to derating curve)
Storage Temperature	-40℃ to 85℃
Operating Humidity	10% to 90% RH, non-condensing
Storage Humidity	5% to 95% RH
Operating Altitude	5,000m

General

Dimensions	145.2(L) 65.8(W) 31.5(H)mm
Weight	420g
MTBF	>500,000hrs Telcordia_SR-332 at 25℃

Protection

Overload	220-250% rated output power, auto recovery
Over Voltage	125-145% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical	ITE
CB	IEC60601-1	-
NRTL	ANSI/AAMI ES60601-1	-
TUV-SUD/mark	EN60601-1	-
CCC	-	GB4943.1

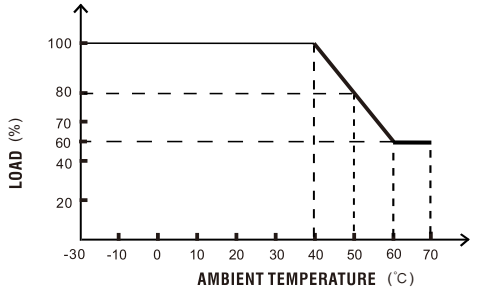
EMC

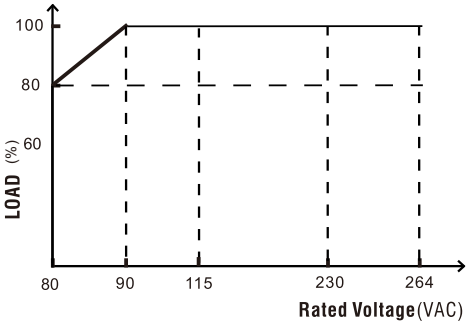
Emissons	Medical	
Conducted	IEC/EN 60601-1-2,CISPR 11	
Radiated	IEC/EN 60601-1-2,CISPR 11	
Harmonic Currents	EN61000-3-2, Class A	
Voltage Flicker	EN61000-3-3	
Immunity	**IEC/EN 60601-1-2**	
ESD	EN61000-4-2	±15kV air, ±8kV contact
Radiated Immunity	EN61000-4-3	10V/m ,3V/m 80MHz - 2.7GMHz
EFT/Burst	EN61000-4-4	±2kV on AC port, ±1kV on signal ports
Surge	EN61000-4-5	±1KV line to line (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

Derating Curve





IP22

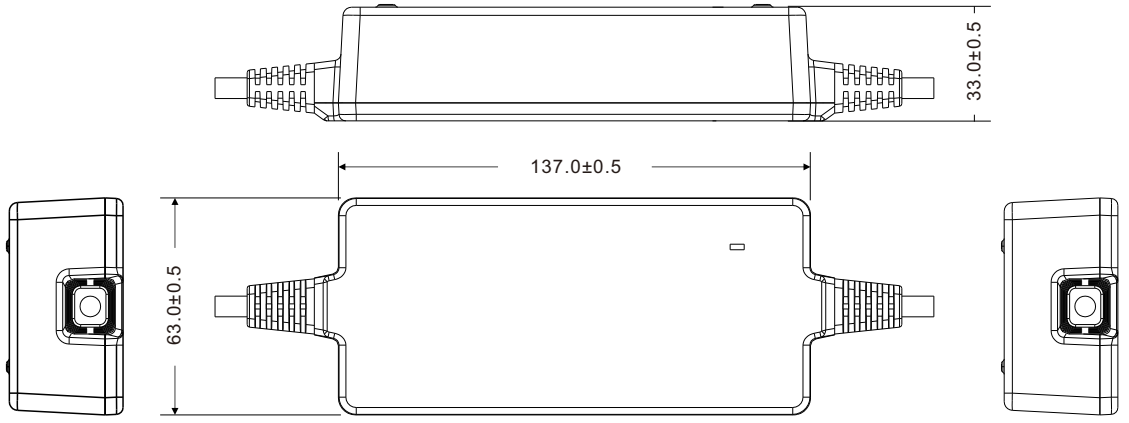
Product Features

- Meet medical & I.T.E. safety approvals
- ≤ 0.8W standby power
- Inputs voltage(11.5-16Vdc)
- 19V-24V outputs, up to 120W

Models & Ratings

Model Number	Voltage (*1) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency (Average)	Start Up Delay
UED120-XXXYYYSPA	19.0	0.01-6.32	120.00W	200mVpk-pk	±5%	Line: ±1% Load: ±5%	89.00%	≤3.5s
	19.1-20.0	0.01-6.00	120.00W	240mVpk-pk	±5%		89.00%	≤3.5s
	20.1-21.0	0.01-5.71	120.00W	240mVpk-pk	±5%		89.00%	≤3.5s
	21.1-22.0	0.01-5.45	120.00W	240mVpk-pk	±5%		89.00%	≤3.5s
	22.1-23.0	0.01-5.21	120.00W	240mVpk-pk	±5%		89.00%	≤3.5s
	23.1-24.0	0.01-5.00	120.00W	240mVpk-pk	±5%		89.00%	≤3.5s

Mechanical Details



Unit: mm

Notes
(*1) Other options are available, please contact our sales representative for details.

Input

Input Voltage Range	11.5-16Vdc
Input Current	18A MAX.
Inrush Current	25A max at 11.5Vdc cold start

Environmental

Operating Temperature	-10℃ to 40℃
Storage Temperature	-20℃ to 80℃
Operating Humidity	10% to 95% RH, non-condensing
Storage Humidity	10% to 95% RH

General

Dimensions	137.0(L) 63.0(W) 33.0(H)mm
Weight	480g
MTBF	>200,000hrs Telcordia_SR-332 at 25℃

Protection

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

Safety Standard

Safety Agency / Mark	Medical(Meet)	ITE(Meet)
CB	IEC60601-1	IEC62368-1
UL	ANSI/AAMI ES60601-1 CAN/CSA-C22.2 NO. 60601-1	UL 62368
TUV-SUD/Mark	EN60601-1	EN62368-1

EMC

Emissons	Medical		ITE
Conducted	IEC/EN 60601-1-2,CISPR 11		EN55032
Radiated	IEC/EN 60601-1-2,CISPR 11		EN55032
Immunity	**IEC/EN 60601-1-2**		**EN55035, CISPR 35**
ESD	EN61000-4-2	±15kV air, ±8kV contact	
Radiated Immunity	EN61000-4-3	3V/m 80MHz - 2.7GMHz	
Conducted Immunity	EN61000-4-6	3Vrms(0.15MHz-80MHz)	

Changeable AC Plug (Second generation)

Category	Diagram	Remark
China (CCC)		
Model	20100441 LCP-CCC-A CCC Plug Parts PC Black 94V-0 RoHS+PAHS	
USA，Canada，Mexico (cULus) Japan (PSE) Taiwan (BSMI)		
Model	20100421 LCP-UL-A PC Black 94V-0 UL Plug Parts RoHS+PAHS	
Europe (VDE)		
Model	20100681 LCP-VDE1 VDE Plug Parts PC Black 94V-0 RoHS+PAHS	
Korea (KC)		
Model	20100761 LCP-KC KC Plug Parts PC Black 94V-0 RoHS+PAHS	
Australia (SAA)		
Model	20100341 LCP-SAA SAA Plug Parts PC Black 94V-0 RoHS+PAHS	
UK (BSI) Singapore (PSB)		
Model	20100351 LCP-BSI BSI Plug Parts PC Black 94V-0 Lron Ground Connection Foot inΦ2.0*22mm Small steel nail RoHS+PAHS	
Brazil (NBR)		
Model	20100771 LCP-NBR NBR Plug Parts PC Black 94V-0 RoHS+PAHS	
India(BIS)		
Model	20101071 LCP-INDIA INDIA Plug Parts PC Black 94V-0 RoHS+PAHS	
South Africa (SABS, SABS-15)	 	
Model	20101181 LCP-6SABS 6SABS Plug Parts PC Black 94V-0 RoHS+PAHS 20100821 LCP-SABS SABS Plug Parts PC Black 94V-0 RoHS+PAHS	
C8		
Model	20100701 LCP-C8Parts PC Black 94V-0 RoHS+PAHS	

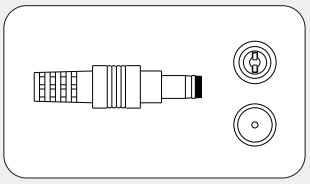
Changeable AC Plug(New, for IP22)

Category	Diagram	Remark
China (CCC)		
Model	20100881 LCP4-CCC CCC Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
USA，Canada，Mexico (cULus) Japan (PSE) Taiwan (BSMI)		
Model	20100891 LCP4-UL UL Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
Europe (VDE)		
Model	20100851 LCP4-VDE VDE Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
Korea (KC)		
Model	20100921 LCP4-KC KC Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
Australia (SAA)		
Model	20100861 LCP4-SAA SAA Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
UK (BSI) Singapore (PSB)		
Model	20100871 LCP4-BSI BSI Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
Brazil (NBR)		
Model	20100931 LCP4-NBR NBR Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
India(BIS)		
Model	20100911 LCP4-INDIA INDIA Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	
South Africa (SABS, SABS-15)	 	
Model	20100941 LCP4-6SABS 6SABS Plug Parts PC Black FR6005 94V-0 RoHS+PAHS (DA-SABS) 20100951 LCP4-SABS SABS Plug Parts PC Black FR6005 94V-0 RoHS+PAHS (XIAO-SABS)	
Argentina (IRAM)		
Model	20100901 LCP4-IRAM IRAM Plug Parts PC Black FR6005 94V-0 RoHS+PAHS	

UE Safety Mark List

No.	Country	Certification Logo	Remark
1	China		CCC
2	China		CQC
3	China		TLC
4	USA		FCC
5	USA&Canada		UL
6	USA&Canada		UL (Medical Power)
7	USA&Canada		NRTL
8	USA&Canada		CSA
9	Germany		TUV-GS
10	Germany		TUV-Mark
11	European Union		CE
12	Argentina		S-Mark
13	Australia		RCM
14	Brazil		INMETRO
15	India		BIS
16	Japan		PSE
17	Korea		KC
18	Mexico		NOM
19	Russia		EAC
20	Singapore		PSB
21	Taiwan		BSMI

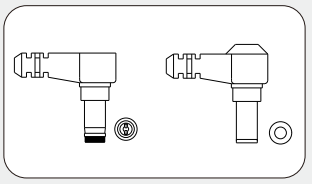
More DC Connector Size



SPECIFICATION

2.35x0.7	3.5x1.35
4.0x1.7	4.75x1.7
5.5x2.1	5.5x2.5
6.3x3.0	

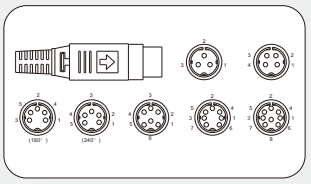
Barrel Type



SPECIFICATION

2.35x0.7	3.5x1.35
4.0x1.7	4.75x1.7
5.5x2.1	5.5x2.5
6.3x3.0	6.5x1.4

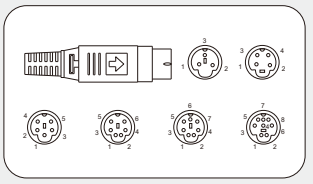
Barrel Type Right Angle



SPECIFICATION

3Pin	4Pin
5Pin(180°)	5Pin(240°)
6Pin	7Pin
8Pin	

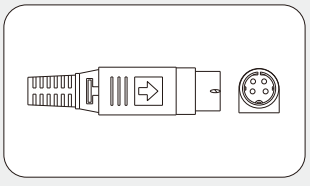
Din(male)



SPECIFICATION

3Pin	4Pin
5Pin	6Pin
7Pin	8Pin

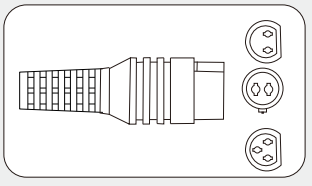
Mini-Din (male)



SPECIFICATION

3Pin/4Pin (Molding)
3Pin/4Pin (Assembly/Lock Type)

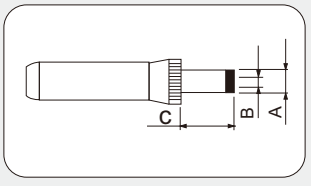
Power-Mini Din (male)



SPECIFICATION

2Pin	3Pin

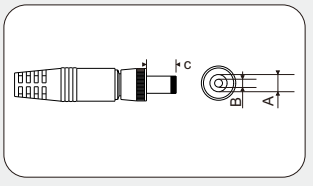
Interchangeable Connector



SPECIFICATION

A:5.5,B:2.1,C:0.375"(9.52mm)
A:5.5,B:2.1,C:0.475"(12.06mm)
A:5.5,B:2.5,C:0.375"(9.52mm)
A:5.5,B:2.5,C:0.475"(12.06mm)

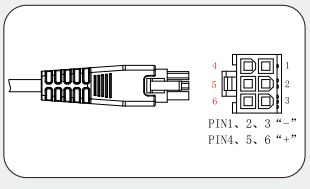
Switchcraft Locking Type



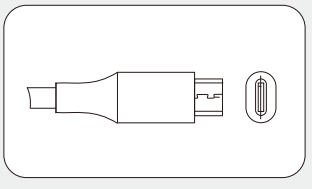
SPECIFICATION

A:5.5,B:2.1,C:7.5
A:5.5,B:2.1,C:10.1

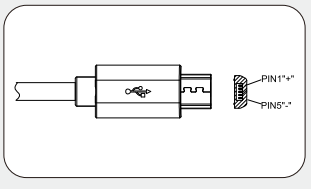
DC Jack with Screw



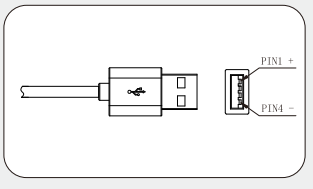
5557-2x3P



USB Type C



MICRO-USB A



USB A

Hot line 400 830 8668

UE Electronic

Head Office:

Fuhua Electronic Co.,Ltd

Add.: Fuhua Electronic Industrial Park, Xianglong Road, Huangzhou, New Town District, Shilong Town, Dongguan, China. 523326
Tel: + 86 769 8602 2222
Fax: +86 769 8602 3333
E-mail: fuhua@fuhua-cn.com

UE Electronic (HK) Co., Ltd

Add.: Unit 1001, 10/F., Concordia Plaza, 1 Science Museum Road, Kowloon, Hong Kong.
Tel: +852 2739 1666
E-mail: fuhua@fuhua-cn.com

Official Website

Public WeChat

http :// www.fuhua-cn.com