



IP22 Class I & II (V)

Product Features

- Meets medical & I.T.E. safety
- 2 MOPP input to output isolation
- Touch current $\leq 100\mu\text{A}$
- Earth Leakage current $\leq 5\text{mA}$
- $\text{PF} > 0.95 @ 230\text{VAC}$ full load
- 11V-56V outputs, up to 180W
- Up to 5,000m operating altitude
- Energy efficiency level VI
($\leq 0.21\text{W}$ standby power when output voltage $> 19\text{V}$)
- CoC V5 Tier2
($\leq 0.15\text{W}$ standby power when output voltage $\leq 19\text{V}$)

NEW



★★★★

Models & Parameters

Model Number	Voltage ^(*) (V)	Current (A)	Rated Power	Ripple & Noise (max)	Voltage Tolerance	Line & Load Regulation	Efficiency	Start Up Delay
UES180D"Z"-XXXXYYSPA	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

C8(D1)

C6(D2)

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	3.0A at 80/90VAC
Inrush Current	120A max at 240VAC cold start
Touch Leakage Current ^(max)	< 100µA at 264VAC

Environmental

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

General

Dimensions	165(L) 69.5(W) 24.25(H)mm
Weight	800g
MTBF	>100,000hrs MIL-HK8K-217 at 25°C

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
TüV Rheinland/Mark	EN60601-1 EN60601-1-11	-
TüV Rheinland/GS	-	EN62368-1
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 - 2.7GHz
EFT/Burst	IEC61000-4-4	±2kV on AC port, ±1kV on signal ports
Surge	IEC61000-4-5	±2kV 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	5,656VDC input to output
Insulation Resistance	10M Ohms, 500VDC input to output