



IP22 Class I & II (VI)

Product Features

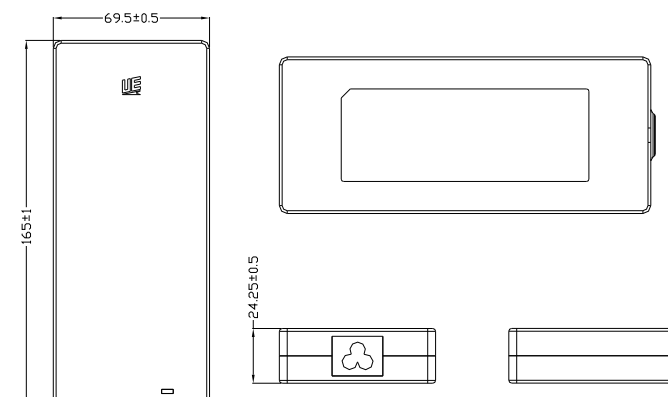
- Medical & I.T.E. safety approvals
- 2 MOPP input to output isolation
- Leakage current < 100µA
- PF>0.95@230VAC full load
- 11V-54V outputs, up to 180W
- Up to 5,000m operating altitude
- DOE Efficiency Level VI
(≤ 0.21W standby power when output voltage > 19V)
- CoC V5 Tier2
(≤ 0.15W standby power when output voltage ≤ 19V)


Models & Parameters


Model Number	Voltage ^(*1)	Current	Rated Power	Ripple & Noise _{(max)(*2)}	Voltage Tolerance	Line & Load Regulation	Efficiency	Start Up Delay
UES180D"Z"-XXXXYYSPA	11.0-12.0	0.01-12.5	150W	150mVpk-pk	±5%	Line: ±1% Load: ±5%	92.0%	≤3s
	12.1-13.0	0.01-11.5	150W	150mVpk-pk	±5%		92.0%	≤3s
	13.1-14.0	0.01-10.7	150W	150mVpk-pk	±5%		92.0%	≤3s
	14.1-15.0	0.01-10.0	150W	150mVpk-pk	±5%		92.0%	≤3s
	17.1-18.0	0.01-10.0	180W	180mVpk-pk	±5%		93.0%	≤3s
	18.1-19.0	0.01-9.47	180W	190mVpk-pk	±5%		93.0%	≤3s
	19.1-20.0	0.01-9.00	180W	200mVpk-pk	±5%		93.0%	≤3s
	20.1-21.0	0.01-8.57	180W	210mVpk-pk	±5%		93.0%	≤3s
	21.1-22.0	0.01-8.18	180W	220mVpk-pk	±5%		93.0%	≤3s
	22.1-23.0	0.01-7.82	180W	230mVpk-pk	±5%		93.0%	≤3s
	23.1-24.0	0.01-7.50	180W	240mVpk-pk	±5%		93.0%	≤3s
	24.1-25.0	0.01-7.20	180W	250mVpk-pk	±5%		93.0%	≤3s
	25.1-26.0	0.01-6.92	180W	260mVpk-pk	±5%		93.0%	≤3s
	26.1-27.0	0.01-6.66	180W	270mVpk-pk	±5%		93.0%	≤3s
	35.1-36.0	0.01-5.00	180W	300mVpk-pk	±5%		94.0%	≤3s
	36.1-37.0	0.01-4.86	180W	300mVpk-pk	±5%		94.0%	≤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	400mVpk-pk	±5%		94.0%	≤3s
	48.1-49.0	0.01-3.67	180W	400mVpk-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

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) ^(*5)



C6(D2)

DC Cable ^(*3):
 UL 1185 14AWG*2C 1200mm with ferrite for 11- 27V
 UL 1185 16AWG*2C 1200mm with ferrite for 36- 56V

Connector ^(*4):
 4PIN, 31*10mm, 1&4"+, 2&3&SHELL"-



Unit: mm

Notes

(*1, 3, 4) Other options are available, please contact our sales representative for details.

(*2) Measured at output connector with 20MHz bandwidth and 0.1µF ceramic in parallel with 10µF electrolytic capacitors.

(*5) Polarized C8 is available.

Input

Input Voltage Range	80-264VAC
Frequency Range	47-63Hz
Input Current	3.0A at 80VAC
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)x69.5(W)x24.25(H)mm
Weight	800g
MTBF	>100,000hrs MIL-HK8K-217 at 25°C
Isolation	5,656VDC Input to Output

Protection

Overload	120-170% rated output power, auto recovery
Over Voltage	120-150% rated output voltage input to reset
Short Circuit	Trip and restart (hiccup mode)

Safety Approvals

Safety Agency / Mark	Medical(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
TüV SUD/Mark	EN60601-1 EN60601-1-11	-
TüV SUD/GS	-	EN62368-1
CE	-	EN62368-1

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	IEC/EN61000-3-2, Class A	EN61000-3-2, Class C
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