



UltraFlex 2500

2500W Multiple Output Modular Power Supply



- ◆ Customized Power Supplies
- ◆ Power factor Corrected
- ◆ Up to 28 fully regulated and independent outputs
- ◆ Output Voltages from 1.8V - 52.8V
- ◆ Full Array of Signals & Controls
- ◆ Input Transient Protection
- ◆ Conducted EMI B
- ◆ International Safety Agency Approvals

Specifications		
AC Input Voltage & Frequency	-	170-265VAC, 47-63Hz
Input Current	A	20A maximum
Inrush Current	A	Less than 40A peak from a cold start at 25C ambient
Efficiency	%	75% typical at nominal line voltage
Power Factor Correction	-	Compliant to EN61000-3-2 (0.99 typical at full load, 230VAC input)
Conducted EMI	-	EN55022 level B, FCC Docket 20780 Part 15, subpart J, Class A
Output Power	W	2500W at 0 to 50°C ambient temp. (at sea level)
Output Voltage Adjustment	-	Via trim pot. Refer to the output module code selector table for ranges.
Overcurrent Protection	-	110-150% of output's rated load for single & dual output modules. Auto-reset.
Overvoltage Protection	-	120-130% nominal on single O/P mod. 120-140% on duals. Recycle I/P power to reset.
Output Load Regulation	-	Single O/P mod. 0.4% max. Dual O/P mod. 0.8% max. (From no load-full load-no load)
Output Line Regulation	-	Single O/P mod. 0.1% max. Dual O/P mod. 0.2% max. (170 - 265VAC, 47 - 63 Hz)
Cross Regulation	-	<0.1% b/w single O/P mod.. <3% b/w dual O/P with 25% load change on high current O/P.
Ripple & Noise	-	<50mV pk-pk for O/P 2V to 5V. <1% pk-pk for O/P >5V. <200mV pk-pk on 3.3V & 5V 5 slot mod. (measured directly on the O/P terminals, < 50mV pk-pk measured 5" away from the terminal with two 2,700uF caps). 1% pk-pk on dual O/P modules. 20MHz band.
No Load Operation	-	No preload is required on single O/P modules. A 1 amp minimum load is required on the highest rated output for dual O/P modules.
Hold Up Time	ms	16mS at 230VAC, full load, and nominal output voltage
Transient Reponse	-	25% step load change results in an O/P deviation of < 3% of nominal voltage (150mV for outputs < 5V, 400mV for 3.3V & 5V five slot modules). Output voltage will recover to within 1% of set value within 300uS (500uS for 3.3V & 5V five slot modules).
Remote Sense	-	Compensates for total cable drop of up to 0.5Vdc.
Remote On / Off	-	TTL compatible signal will turn off all O/P mod. Active high/active low function is selectable.
Global & Module Signals	-	Refer to installation manual for signal descriptions.
Parallel Connection	-	Single wire active current share. Refer to Lambda application note AN-018 for details.
Operating Temperature	°C	0°C to +50°C full load, derate linearly to 50% load from 50°C to 65°C. (-20°C start-up, 30minutes warm up to perform within all specifications)
Thermal Protection	-	Protected against over-temperature conditions. Fans continue to operate during shut down cycle. Recycle input power to reset.
Storage Temperature	°C	-40°C to +85°C
Temperature Coefficient	-	0.02%/°C over the ambient temperature range of 0 to 50°C. (After 30 minute warm-up)
Humidity	%RH	10% - 90% Non-condensing
Altitude	-	0 - 10,000 feet Operating
Cooling	-	Internal fan provides forced-air cooling. Airflow intake on I/P end, exhaust on O/P end of unit.
Isolation	-	Input - Output 4242VDC, Input - Ground 2121VDC, Output-Ground 100VDC
Switching Frequency	-	100kHz on boost converter
Vibration	-	Meets IEC68-2-64, 20-2000Hz, 6G acceleration for a minimum of 30 minutes.
Shock	-	Meets the performance requirements of IEC68-2-27; 15G, 11ms half-sine pulses.
Safety Agency Approvals	-	UL1950, IEC950, CSA22.2 No.950, EN60950, Demko, CE Mark
Weight (Net / Shipping)	lbs	9.5lbs + 0.5lbs / used slot; Maximum # of slots = 14.
Size (WxHxD)	In.	8" x 5" x 11"
Warranty	-	Three Years

To configure your Ultraflex 2500 part number:

Step 1: From the output module code selector table, select the module codes corresponding to your voltage and current requirements. Example 5V@20A, code = "G". Note the number of slots for each module code selected.

Step 2: Place the module codes numerically then alphabetically after the prefix code "UGZ1". Example if the module codes "G", "8", and "3" are selected, then the corresponding part number is "UGZ1 3 8 G".

Step 3: Check to ensure that the total number of module slots does not exceed 14 slots. The Ultraflex 2500 has 14 module slots available.

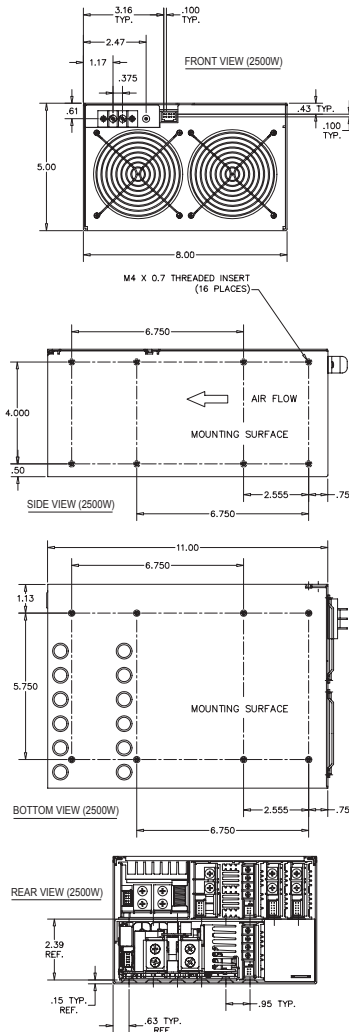
UltraFlex 2500 Case Code & Signals

Code	Power	Input	Slots	EMI	Dimensions	Note
UGZ1	2500W	170-265 VAC	14	Class B	5" x 8" x 11"	Full Featured Signals

Note:

- 1) INPUT SIGNALS (Global): Input power fail, 5V@300mA standby, global inhibit, global output good, fan stop/thermal alarm, fan inhibit.
- 2) OUTPUT MODULE SIGNALS: Module inhibit, margin, remote adjust, output good, current monitor & current share: active current share and module inverter OK.
- 3) Dual output modules are not available with full featured signals. Duals feature remote sense and inhibit only.

Outline Drawing



Output Module Code Selector

From the table below, match the available modules to your voltage and current requirements. Modules are available in different power levels which correspond to varying slot widths. The maximum number of output module slots for the 2500W converter is 14.

Code	V1 nom	Amps	V2 nom	Amps	V1 adjust	V2 adjust	Slot(s)
A	2	30	-	-	1.8 - 2.2	-	1
B	2	60	-	-	1.8 - 2.2	-	2
C	2	100	-	-	1.8 - 2.2	-	3
D	3.3	30	-	-	3.0 - 3.6	-	1
E	3.3	60	-	-	3.0 - 3.6	-	2
F	3.3	100	-	-	3.0 - 3.6	-	3
9E	3.3	200	-	-	3.0 - 3.6	-	5
G	5	30	-	-	4.5 - 6.0	-	1
H	5	60	-	-	4.5 - 6.0	-	2
I	5	100	-	-	4.5 - 6.0	-	3
9H	5	200	-	-	4.5 - 6.0	-	5
J	12	17	-	-	10.8 - 13.2	-	1
K	12	30	-	-	10.8 - 13.2	-	2
L	12	50	-	-	10.8 - 13.2	-	3
M	15	14	-	-	13.5 - 16.5	-	1
N	15	24	-	-	13.5 - 16.5	-	2
5Q	20	15	-	-	16.5 - 22.0	-	2
P	24	8.5	-	-	21.6 - 26.4	-	1
Q	24	15	-	-	21.6 - 26.4	-	2
R	24	25	-	-	21.6 - 26.4	-	3
9Q	24	41.7	-	-	21.6 - 26.4	-	5
8	28	12	-	-	25.2 - 30.8	-	2
3	36	11	-	-	32.4 - 39.6	-	2
S	48	4	-	-	43.2 - 52.8	-	1
T	48	8	-	-	43.2 - 52.8	-	2
U	48	12.5	-	-	43.2 - 52.8	-	3
9T	48	20.8	-	-	43.2 - 52.8	-	5
V	12	10	5	4	4.5 - 5.5	10.8 - 13.2	1
W	5	10	12	4	4.5 - 5.5	10.8 - 13.2	1
Y	12	10	12	4	10.8 - 13.2	10.8 - 13.2	1
Z	15	8	15	3	13.5 - 16.5	13.5 - 16.5	1

Dual Outputs

Single Outputs

- Notes:
- 1) Module codes are ordered numerically then alphabetically (i.e. UGZ1-3-8-G or UGZ1-9H-G-S). The module listing within the part number does not reflect the actual position of the module.
 - 2) Dual output modules do not have output or input signals except for remote sense and inhibit only.

Sample Configurations

	Output 1		Output 2		Output 3		Output 4		Output 5	
	V	A	V	A	V	A	V	A	V	A
UGZ1-9E-9E	3.3	200	3.3	200	-	-	-	-	-	-
UGZ1-9H-F	5	200	3.3	100	-	-	-	-	-	-
UGZ1-H-L-R	5	60	12	50	24	25	-	-	-	-
UGZ1-F-N-Z	3.3	100	15	24	15	10	15	4	-	-
UGZ1-3-A-B-J	36	11	2	30	2	60	12	17	-	-
UGZ1-5Q-C-E-M-S	20	15	2	100	3.3	60	15	14	48	4
UGZ1-9E-9H-D-G-J	3.3	200	5	200	3.3	30	5	30	12	17

Note: The module listing within the part number does not reflect the actual position of the module.

Call 1-800-LAMBDA-4 for additional technical support.

For additional Information, please visit
www.lambdapower.com/products/ultra-flex-ac.htm